THE NAVAL SAFETY CENTER'S AVIATION MAGAZINE

approach

November 2000

Bucking Bronco at the Ramp pg. 22

Shades of Payne pg. 26

Check This Plane for BULLET HOLES pg. 2

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On the Cover S-3B from VS-33 makes a low-level pass over the Grand Canyon. Photo by PHC (AW/SW) Mahlon K. Miller

RAdm. Skip Dirren, Jr. **Commander, Naval Safety Center**
Bill Mooberry **Deputy Commander**
John G. Mahoney **Head, Media Department**
Lt. Thomas Hamrick **Head, Graphics Division**

Approach Staff (757) 444-3520 (DSN 564)
Derek Nelson **Editor**
dnelson@safetycenter.navy.mil Ext. 7244
Allan Amen **Graphics, Design & Layout**
aamen@safetycenter.navy.mil Ext. 7248
PH2 Matthew Thomas **Staff Photographer**
Ginger Rives Distribution (Magazines and Posters)
vrives@safetycenter.navy.mil Ext. 7256
Letters and Articles Commander, Naval Safety Center
Attn: Approach, Code 71
375 A St., Norfolk, VA 23511-4399
Publications FAX (757) 444-6791

Col. Dave Kerrick, USMC **Aviation Safety Programs**
dkerrick@safetycenter.navy.mil Ext. 7225
Cdr. John Anderson **Aircraft Operations Division**
janderson@safetycenter.navy.mil Ext. 7203
Cdr. Mike Francis **Aircraft Mishap Investigation Division**
mfrancis@safetycenter.navy.mil Ext. 7236
Capt. James Fraser **Aeromedical Division**
jfraser@safetycenter.navy.mil Ext. 7228
Homepage address www.safetycenter.navy.mil

Postmaster: Send address changes to *Approach*, Code 74, Naval Safety Center, 375 A Street, Norfolk, VA 23511-4399

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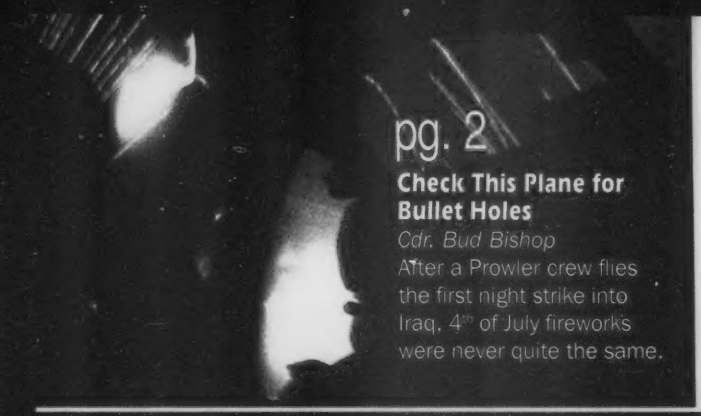

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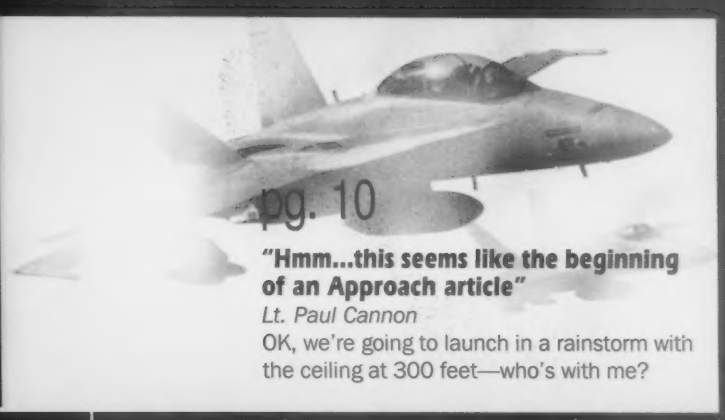

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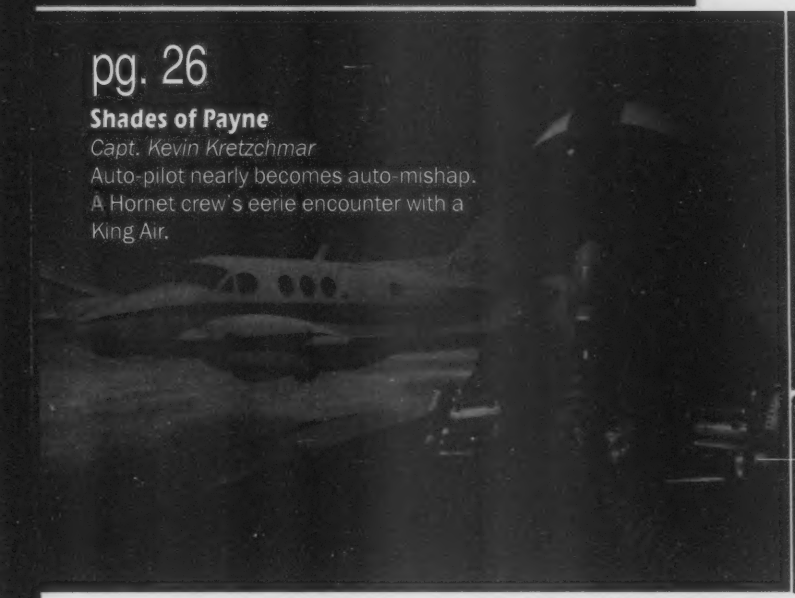

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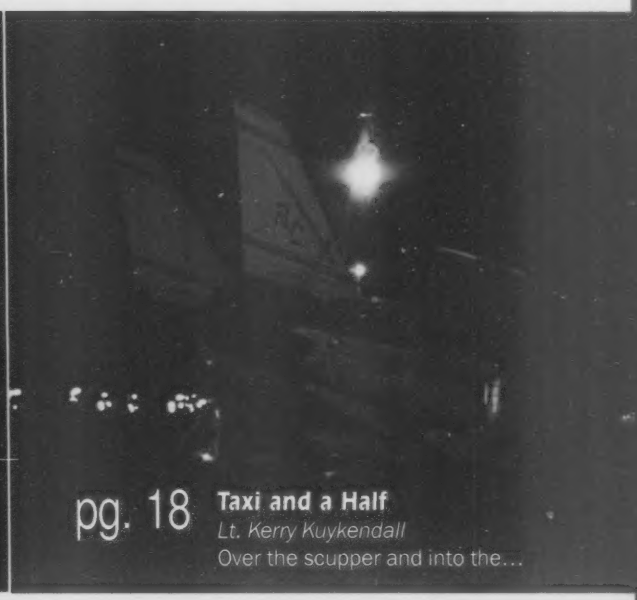

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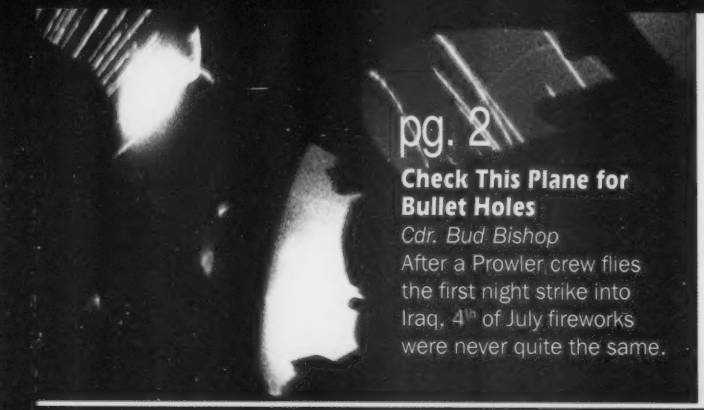

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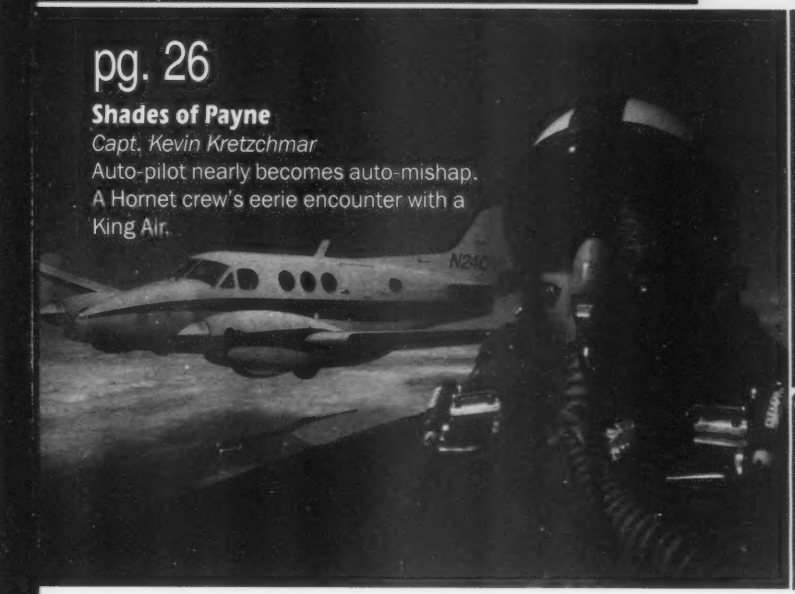

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Check This Bullet

by Cdr. Bud Bishop

Tracer rounds flashed across the canopy. More lines of tracers arced ahead of our intended flight path, some above and some below. One enterprising soul off to the right was wildly swinging his mounted machine gun back and forth. The bright yellow tracers from his gun flitted wildly all around us. I silently cursed him. Rick pushed the stick forward, and we began a shallow descent to get under the tracers ahead of us. Neither one of us heard, amidst the cacophony of sounds coming from the missile-warning and attack systems, the ground-proximity warning tone.

Photo-composite illustration by Allan Amen

PLANE FOR HOLES

I didn't know it, but this flight would spell the end of my enjoyment of holiday fireworks displays forever.

We didn't know it, but we had less than five seconds to live... almost.

Earlier that night, I had pondered the fact that I was flying on the first strike into Iraq. How did I get so lucky? Our battle group, centered around USS *Ranger*, had been ordered to deploy in December 1990 to Operation Desert Shield. We didn't have much time—although President Bush hadn't published his deadline of Jan. 16, 1991, yet, we knew there was going to be a line drawn in the sand very soon. As it was, our arrival in the Persian Gulf was scheduled for Jan. 14. It turned out we had one day to familiarize ourselves with the Persian Gulf airspace, so we didn't waste any time en route. Our handguns were assembled (still in 1911 Cosmolene) and we held target practice on the fantail. We got our blood chits, area briefings, and general lessons on Islam.

USS *Ranger* pulled into the Gulf in the early morning hours of Jan. 15. Soon we learned that Tomahawk missiles were en route to Baghdad, and our team would plan, brief and fly the Navy's first strike of the war. For a minute, you could have heard a pin drop.

Then we went into overdrive, preparing predictions for our infrared system and radar, drawing targets, coming up with electronic jamming and HARM timelines. We had two targets, a wharf where missile patrol boats had been moored, and a set of finger piers that supported armed speedboats.

We launched on schedule. Thanks to our maintainers, our jets were perfect. We joined with two aircraft from our sister squadron, and we waited for our push time. My 800-plus peacetime missions paled in comparison to this one. The dull roar of the twin jets sitting five feet below me, usually a comfort, were now a cause for worry—would they hold up under the additional strain of the combat settings, which had

increased their power output above redline? I pushed doubt from my mind as I scanned my instruments and radar. There was the Kuwaiti coastline off to the left—a thick, bright orange line glowing on my radar screen.

Around us, invisibly, 11 other aircraft circled; some, like us, carried eight 800-pound cluster bombs. Others carried anti-radiation missiles. Above them, the radar jamming and fighter aircraft set up their stations to protect us from Iraqi aircraft and missiles. Three minutes to go. We were making our final run to our push point, and the pilot was pushing the throttles to their stops.

Push time. We were on our way in. Ahead of us, three other attack aircraft screamed, single-file, towards the target at 500 knots, skimming over the dark waves 200 feet below us. At 15 miles, the two lead aircraft turned left, while my pilot followed the third aircraft to the right. We would converge at our target in 18 minutes, each aircraft dropping its bombs with only 45 seconds separation. Timing was crucial—because our aircraft lights were off to prevent anti-aircraft gunners from tracking us, any variance of timing might result in a midair over the target.

Fourteen miles to the beach. Suddenly, a bright light appeared ahead of us and a missile quickly rose into the air, slowly arcing toward us. We readied ourselves for the split-second timing maneuver that would allow us to dodge the missile as it closed on our aircraft. The light of the missile's plume grew brighter…brighter… then went out as the missile began its ballistic phase of flight. We could no longer see it, and it's hard to avoid what you can't see.

As the seconds passed, we realized the missile had missed. At the same time, it dawned on us that this wasn't going to be any surprise attack. At seven miles, the second missile rose ahead of us. Our lead aircraft should have just crossed the beach by now. Magically, silent ropes of red tracers began arcing across the sky to greet them as the second missile started tracking us. Rick focused on the missile, and, again, we prepared for our avoidance maneuver. And once again, the missile's plume went out, and we turned blindly and waited. It missed, too, and we diverted our attention to the ropes of bullets reaching out to find us. We were over the beach.

We were beginning a 14-minute flight, at 100 to 200 feet, over numerous enemy companies positioned to repel a threatened invasion by our Marines.

The light of tracer rounds flashed across the canopy, white, yellow, red and green, depending on the caliber of weapon. I was struck by the beauty of this July 4th-like display. I didn't know it, but this flight would spell the end of my enjoyment of holiday fireworks displays forever.

Rick pushed the stick forward, and we began a shallow descent. We both suddenly realized that we were about to hit the ground. It was almost like a giant hand came out of the blackness and slapped our helmets. The origin of the bullets and tracers—the gun flashes—were almost at eye level when Rick and I looked back inside the cockpit at the altimeter. It was rapidly unwinding, the big hand on zero and the little hand rapidly passing through 200 feet. Time compression can be a wonderful thing. In hundredths of a second, I noticed that Rick had looked at all the dials and had moved the stick back, that the altimeter had started back up, and that tracers were passing us from all directions.

With the sand dunes roughly 20 feet above sea level, we figured that we had bottomed out in our dive at less than 40 feet (our wing span was a little more than 60 feet)! We rapidly climbed into the thickest part of the tracers. We leveled off at 1,800 feet, flying straight and level through lines of tracers and missiles that we now totally ignored. We both sat back in our seats and tried to breathe normally. That had been too close a call. Rick mentioned something about going down lower, but we both decided that the ground could definitely kill us—the bullets might not.

That's where I learned a lesson that has never left me. If one guy is outside the cockpit, the other needs to be on instruments. If everyone in your flight is heads down in the cockpit, be the guy who looks up. Balance your attention, balance the risk.

Things got worse after our close call. Up ahead, the target defenses were engaging our lead aircraft,

and the black sky was covered by a web of tracers that appeared impenetrable. At this point, my pilot considered aborting. But after a quick look behind us where sky was just as bad, we again focused on prosecuting our target. Moments later, we penetrated the last wall of tracers.

Once through the last defenses, we steadied up our course...we were on government time now, meaning that we would not jink our aircraft until our bombs were released. But, again, our intentions did not reflect reality. In the final seconds of our run, a single line of tracers rose up out of the darkness directly in front of us. There was no way this gunner was going to miss, and Rick jerked the stick left. Immediately, our bombs released and, with our wing down, we launched them to the side of their intended impact-point. Rick threw the stick hard right, and I looked back over my shoulder to watch the bomblets ripple across the bow of a merchant ship. I could see flashes of explosions as some of the bomblets landed in the open cargo hatch at the front of the ship. The rest splattered into the warehouse next to the ship.

We completed a climbing right turn, leveling out at 2,000 feet—right into the heart of the missile threat. I keyed the radio for the first time since we began the flight and made the radio call, "Feet wet." Although we still had seven miles to go, I felt we were close enough. Big mistake, and Rick let me know it.

Everyone knew we were the last plane on the strike, so when we actually passed over the beach 45 seconds later and began our climb over water, an Air Force picket, an F-15 fighter, took us for an Iraqi who was trying to chase down the strike group. All we saw in our cockpit, however, was the appearance of a single, bright green strobe that lit up our air-warning receiver. I ignored it, but Rick was still on a hair trigger and told me to contact the AWACS to see what was behind us. The reply from the AWACS chilled us to the bone: "Rustler, you have a bogie at seven miles, mach 1.2. He will have a firing solution in thirty seconds."

While I struggled to deactivate all of the emitters in our aircraft that might aid the bogie (we assumed it was an Iraqi), Rick rolled us upside down and pulled us down towards the dark surface of the water. Ahead, a Navy frigate saw our maneuver, which resembled that of an incoming missile—and armed his weapon system. Before firing, the CO of the frigate asked the F-14 under his control to verify the identity of the incoming "bogey." The F-14, seeing our silhouette against the dawn sky in the east, broadcast the warning "Blue on blue, knock it off, knock it off" to signal the Navy captain to hold his weapons. The F-15 heard the announcement and stopped prosecuting the attack. Rick and I heard the call, believed that the AWACS had saved us, and climbed back to a more fuel-efficient altitude to return to our carrier.

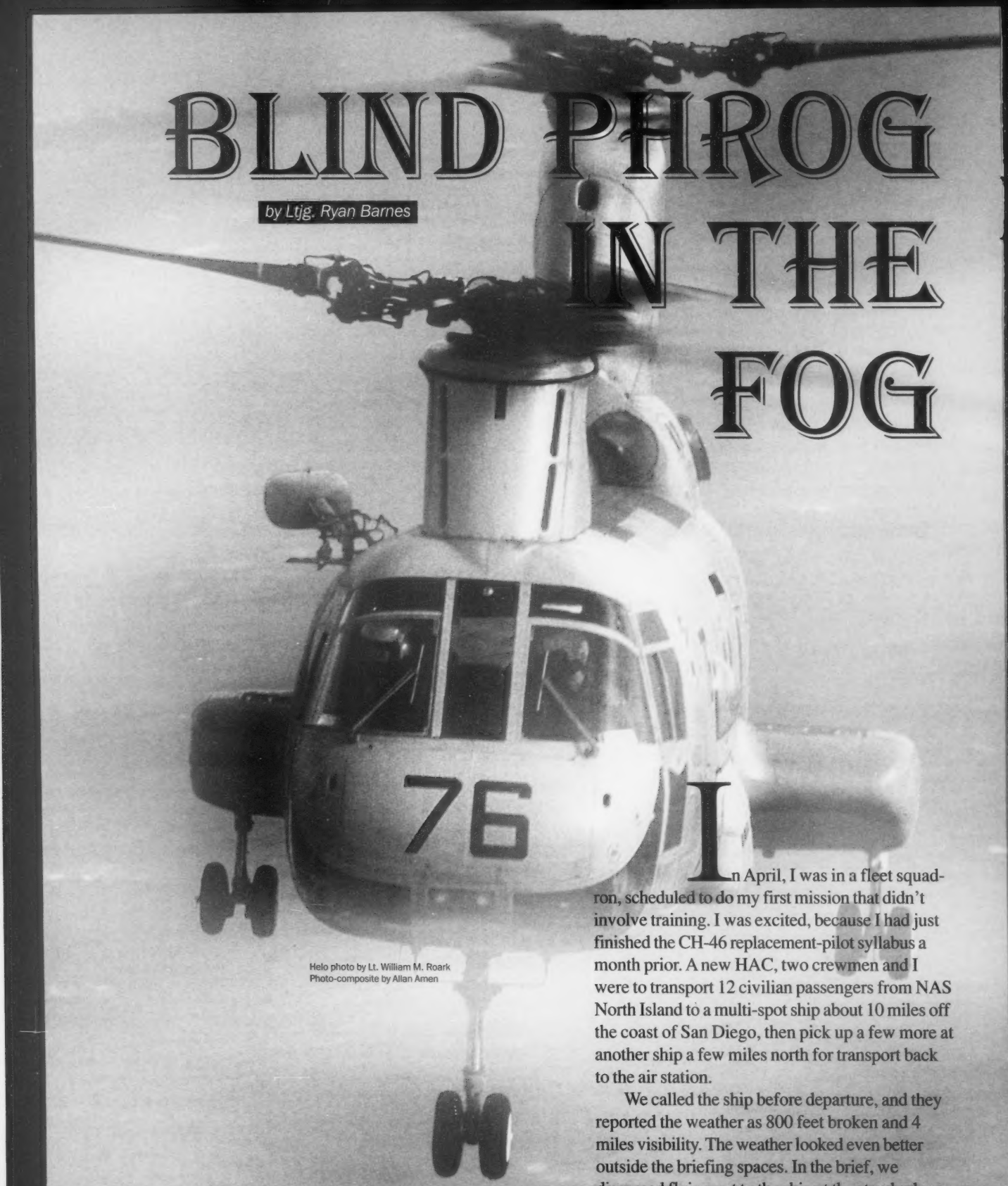
> "Rustler, you have a bogie at seven miles, mach 1.2. He will have a firing solution in thirty seconds."

After we landed, a plane captain, no more than 19 years old, asked if I was OK. "Yes," I replied, "but you need to check this plane for bullet holes before we launch it again." There was not one single hole in the aircraft. Other aircrews, flying high above us and observing our ingress, were amazed any of us survived. Later, a review of the low-light, cockpit video recorder showed that we had unknowingly flown through two towering cargo cranes as we dropped our bombs in the target area. If we had not made that last-minute turn to avoid the single line of tracers in the target area, we surely would have hit one of them.

Cdr. Bishop is the CO of VAQ-136.

BLIND PHROG IN THE FOG

by Ltjg. Ryan Barnes



Helo photo by Lt. William M. Roark
Photo-composite by Allan Amen

In April, I was in a fleet squadron, scheduled to do my first mission that didn't involve training. I was excited, because I had just finished the CH-46 replacement-pilot syllabus a month prior. A new HAC, two crewmen and I were to transport 12 civilian passengers from NAS North Island to a multi-spot ship about 10 miles off the coast of San Diego, then pick up a few more at another ship a few miles north for transport back to the air station.

We called the ship before departure, and they reported the weather as 800 feet broken and 4 miles visibility. The weather looked even better outside the briefing spaces. In the brief, we discussed flying out to the ship at the standard

altitude of 500 feet. Every light appeared green, so we finished our preflight and taxied to the terminal to pick up the passengers.

On the way, we all noticed an odor most commonly associated with sticking or hot brakes. We stopped for a few minutes to investigate but found nothing out of the ordinary. Although the odor had vanished, we continued to focus on it as we taxied to the terminal to pick up the passengers. The passengers climbed onboard. Listening to ATIS, we recorded the same weather as before and departed from the field.

Climbing to 500 feet, we leveled off and got a sweet lock on the first ship's TACAN. About 2 miles from the field, the cloud deck started to solidify and lower. We descended to remain VFR. Then, at 300 feet, we started a climb through the layer to the reported tops. At 1,200 feet, as expected, we broke through into clear skies. As we continued out to the ship, one of the crew in back told us the same thing had happened on the previous day. That crew had just flown circles around the ship's position until they found a hole in the layer. With our comfort level higher than it should have been, we continued out over a completely solid deck. We radioed inbound to the ship and requested the current weather report, for which we had to wait an unusually long time. A 400-foot ceiling with 2 miles visibility was the eventual report.

We circled for 10 minutes but found no break in the layer. After the ship reported no other vessels in the area, the HAC took the controls and told the crew that we were going to do a modified TACAN approach. We would cross over the ship, track outbound, and make a descending turn back to the ship, ending up below the 400-foot layer. We would then come up the stern of the ship for a landing.

Everything went as expected until we passed below 400 feet and found ourselves still in a solid layer. We slowed our descent below 300 feet, and our air speed steadily decreased. The tension rose as we descended through 200 feet at 20 knots, still in the thick of it. I rode the controls with the HAC, as our scans constantly switched between altitude and outside the aircraft. As we approached 150 feet, we leveled off. The ocean was barely visible directly below us, and visibility was zero in every other direction. The crewmen in the back reported the same. We continued inbound for a few minutes, dipping slightly below 150 feet (the altitude my alarm was set at) twice, with immediate corrections back to 150. We were basically holding a 150-foot hover in IMC. To make matters worse, I had everything I needed to know about the ship, except its height above the water. At one mile, we stopped the search and started a climb back up through the layer. Again we broke out at 1,200 feet. The ship reported hearing us pass close by on the starboard side. How close, we will never know.

The ocean was barely visible directly below us, and visibility was zero in every other direction.

We cautiously proceeded to the next ship, hoping to find better weather, but learned that the weather there was 200 feet with one-half mile visibility. At this point, we decided to divert back to NAS North Island, rather than hold for the weather to clear. I logged a standard PAR to a safe landing, and we dropped the passengers back off at the terminal. As we taxied back to our line, the brakes locked up, and we had to air taxi to a spot for shutdown.

My first flight in my new squadron was quite a learning experience. I felt well-prepared, though I had obviously forgotten to bring very important information. Our desire to complete the mission, a faulty forecast, and not setting clear safety limits on our approach put our bird in a very dangerous position. To this day, we aren't sure how close our aircraft, with 16 people inside, came to blindly hitting the ship. I drew two lessons: Be prepared, and expect the worst.

Ltjg. Barnes flies with HC-11.

Complacency's Evil Twin Brother

by Lt. Tim Buller

Over and over, it gets drilled into our heads: Mundane and expected tasks can sneak up and bite us when we least expect it. But we seldom discuss complacency's evil twin brother: overconfidence. How many times have you let your 2,000 hours in type dictate the maneuvers you fly or how aggressively you handle your aircraft? My guess is more than you probably should have.

One crisp November morning proved to be an eye-opening experience for me. I had just returned from a three-week sabbatical of leave and LSO school. I jumped into the cockpit for a much-needed, back-in-the-saddle hop. I'd completed a closed-book EP exam, and with all of 820 flight hours behind me, I strutted to the plane like a war-hardened cruise veteran, mulling over the three previous weeks. After all, I'd been flying the E-2 for almost two years now; nothing could take me by surprise.

Man-up and engine start seemed to go fine, but a hint of insecurity lingered in the back of my mind. I could tell my scan was unusually slow, and the checks were taking longer than normal. I continued to rush the checks, hoping no one would notice, and trusted sheer repetition to get me to the hold-short. Takeoff and climbout passed uneventfully. However, my airwork was plagued with inconsistencies, missed radio calls, and even missed altitude assignments. As I slowly but surely began to rebuild my airmanship skills, my headwork deteriorated. Although I never exceeded airframe limitations during any maneuvers, my flying was littered with forgotten procedures and substandard practices. Without the help of a good copilot, I may have banished my Hawkeye to the hangar bay for unnecessary repairs. I continued to pat myself on the back for my newly regained flying skills, as my decision-making flushed itself down the toilet.

The call was finally made to RTB, and I asked the back-enders if they were ready for the break. I heard an emphatic "Yes!" Then, "You better make it a good one!" That's all I needed to hear. We requested a carrier break and scorched into the overhead like only a Hummer can—at 300 knots.

How could I tell them, "No, it's been awhile, I'm going to go in at 1,700 feet and 250 for the normal break?" I've done the carrier break hundreds of times; how could this be any different?

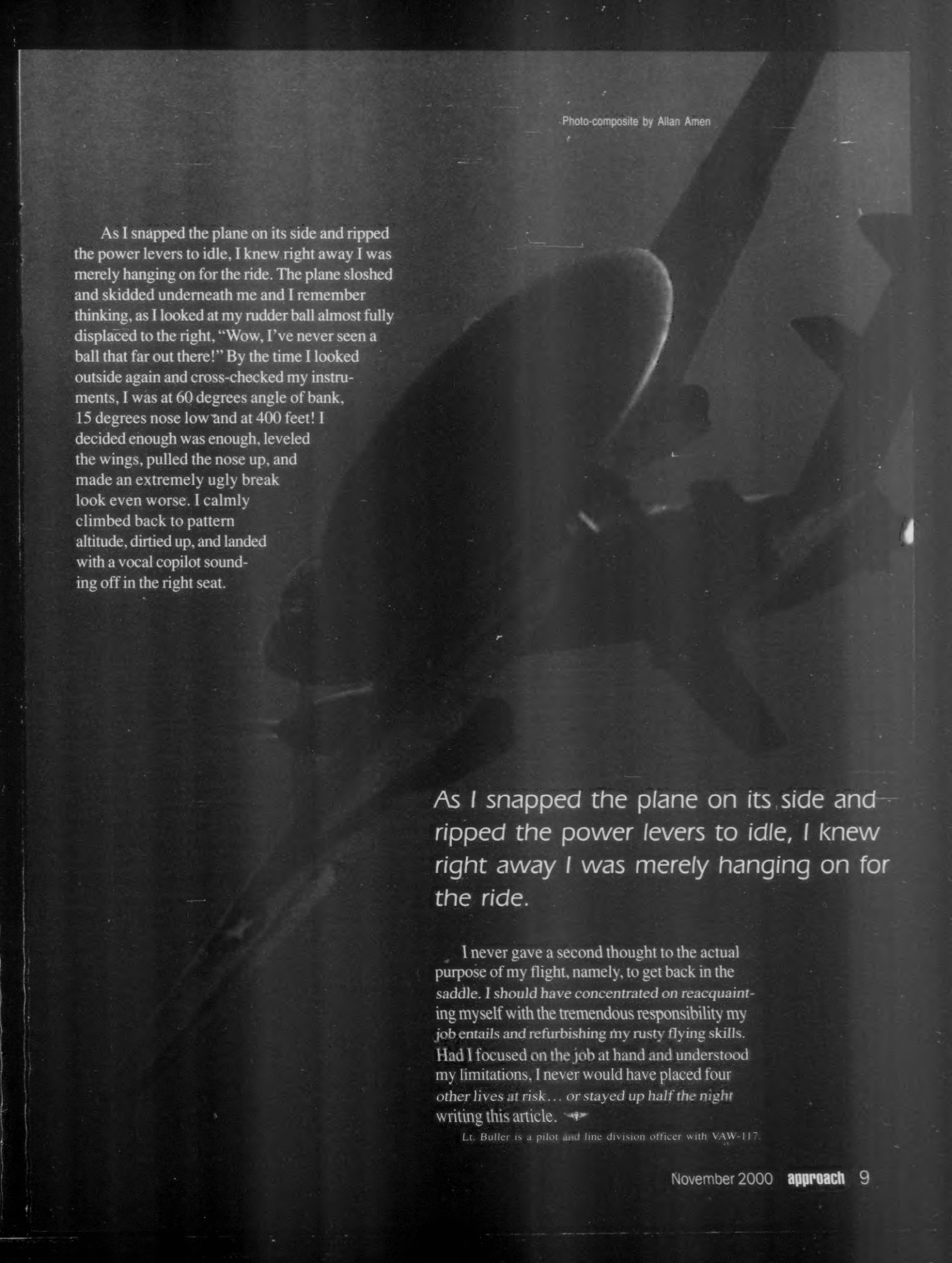


Photo-composite by Allan Amen

As I snapped the plane on its side and ripped the power levers to idle, I knew right away I was merely hanging on for the ride. The plane sloshed and skidded underneath me and I remember thinking, as I looked at my rudder ball almost fully displaced to the right, "Wow, I've never seen a ball that far out there!" By the time I looked outside again and cross-checked my instruments, I was at 60 degrees angle of bank, 15 degrees nose low and at 400 feet! I decided enough was enough, leveled the wings, pulled the nose up, and made an extremely ugly break look even worse. I calmly climbed back to pattern altitude, dirtied up, and landed with a vocal copilot sounding off in the right seat.

As I snapped the plane on its side and ripped the power levers to idle, I knew right away I was merely hanging on for the ride.

I never gave a second thought to the actual purpose of my flight, namely, to get back in the saddle. I should have concentrated on reacquainting myself with the tremendous responsibility my job entails and refurbishing my rusty flying skills. Had I focused on the job at hand and understood my limitations, I never would have placed four other lives at risk... or stayed up half the night writing this article.

Lt. Buller is a pilot and line division officer with VAW-117.

"Hmmm... this seems like the beginning of an *Approach* article"

by Lt. Paul Cannon

My lead and I tried to explain to the controller that our section had separated and would need individual GCAs now, but his bucket was already overflowing, and he never quite understood what was happening.

After a successful, week-long, JO-run detachment to Tunisia, I was dash four in a division of Hornets flying back to the ship. It was great to have spent a week off of the carrier during the first month of cruise, and we were now flying back onto the ship two days before our first port visit. Not bad.

The plan was to fly from Tunisia to Souda Bay, Crete, top off with gas, then proceed to the ship, which was operating off the coast of Egypt. The flight plan had us landing at Souda Bay with just over 3,000 pounds and a VFR forecast. The flight was uneventful up to the point where we checked in with the Greek controller as we approached Souda Bay. We've all heard stories about foreign controllers with weak English skills, and this controller definitely fit the bill. He refused to respond to our request for the weather conditions at Souda Bay and didn't clear us for any approach. Our division ended up flying directly over the field at 28,000 feet, trying to work through the language barrier. We had less gas than we had planned, and the weather seemed to be worse than forecast.

Eventually, we split up into sections and were cleared for GCAs. My section penetrated the clouds at 20,000 feet overhead the field in a steep spiraling descent. It took about 10 seconds for a major case of vertigo to set in. The clouds got thicker and thicker as we spiraled down, and I struggled to hang onto my lead's wing. Eventually his aircraft disappeared for a second, then came back, then disappeared, then came back. It was time to stop trying to hack it, level off, take a cut away, suck up my pride, and call lost sight.

I came inside the cockpit to regain my bearings, while letting my lead know what I was doing. The fact that I was in the clag with a

Photo-composite illustration by Allan Amen

clueless controller in mountainous terrain wasn't helping my blood pressure. Meanwhile, the other section of Hornets was somewhere behind us. My lead and I tried to explain to the controller that our section had separated and would need individual GCAs now, but his bucket was already overflowing, and he never quite understood what was happening. My lead called me on comm 2 and let me know he had broken out at 800 feet. I coordinated with the other section on comm 2, to make sure we weren't near each other. I flew to the course line on my HSI and gradually descended. Eventually I broke out at 800 feet, a few miles in front of the field, and came in for my own straight-in. I landed with more than 2,000 pounds of fuel, but the approach was anything but standard.

After calling the ship from base ops and letting them know we would be there in a few hours, we manned up in driving rain. The ceiling had come down to about 300 feet, and water was standing on the runway. The weather was lousy, the controllers were weak, we were in mountainous terrain, and it was getting late in the day. On the taxiway, the division lead made the call: we were putting ourselves into a box. We cancelled the launch, proceeded to the line, and shut down. After getting out of our jets and talking about it, we agreed that the flight had been feeling more and more like the beginning of an *Approach* article. When we called the ship, our chain of command was glad to hear we had decided not to push it. They told us to enjoy our extra night ashore, which we did. The next day the weather was fine, and we made it to the ship just in time for our first port visit.

Not bad.

Lt. Cannon flies with VFA-86.

Single-Engine Or Engine Fire?

by Lt. Clark Childers

It was toward the end of our COMPTUEX at-sea period, in the middle of our workups for WestPac 00. I was a nugget in the squadron, with less than 300 Hornet hours, 50 arrested landings, and about six months in my fleet squadron. I launched from the ship on a CAVU day with three Mk-82s and two drop tanks. My lead was a cruise- experienced JO with about two years in the squadron; he had recently received his section lead qualification. We joined overhead the boat and headed for San Clemente Island for some unit-level training.

Coming off target on our last bombing run, I got a master-caution light and tone. This was the result of an L BOOST LO caution, indicating a loss of left-engine fuel-feed pressure. I continued my left turn and intercepted my lead. During the rendezvous, I called my lead and let him know the status of my airplane. We pointed our noses back toward mother, 40 miles south. As we were breaking out our NATOPS pocket checklists and climbing through 8,000 feet, I got my second indication, an L AMAD caution indicating high oil temperature in the airframe mounted accessory drive. This was about three or four minutes from the first indication of a problem.

I pulled my left throttle back to idle, my wingman gave me the lead, and we continued to go through the procedures. The AMAD caution was the more serious problem, so we decided to go through that procedure first. It recommends that, if conditions permit, you consider shutting down the engine and restarting for landing. We decided to leave the engine running and call for a rep. About this time, I got a third indication, an L AMAD PR caution, indicating a loss of oil pressure in the AMAD.

Six months into my first squadron, I should be on top of my NATOPS knowledge. However, I didn't recognize this combination of events from the simulator training in the RAG.

One thing that I did realize was that I was having multiple indications of a serious problem in the jet, and they weren't erroneous indications. When I got a rep from the tower, I was about 10 miles from mother at 16,000 feet. The tower rep was a familiar voice, the only other JO more junior than myself. He broke out his NATOPS, went through the procedures, and asked if I had shut down the engine yet. Having exhausted our combined experience levels, the rep called down to the ready room and got a department head down to CATCC to provide some advice. At this point, I did not have a game plan in my mind and was not making the important decisions on my own.

The CATCC rep came up on the radio, and I told him my indications. He asked again if the engine was secured. Telling him that it was not, he concurred with our decision and began preparing the ship for the pull forward and the immediate recovery. I remembered hearing that AMADs have come apart in a matter of minutes after an AMAD caution. That concerned me, espcially since I'd had so many indications. The rep told me to prepare to make a half-flap straight in to the boat. He said to bring the engine up off the idle stop just prior to the ball call and to make a normal approach. About five minutes later, after dumping down to max trap for a half-flap approach, I saw that the ship had cleared the landing area, made 35 knots wind over deck, and was prepared to catch me.

My lead was still with me in trail, giving helpful hints over the radio. I thanked him for the help and said I'd see him on deck. I made my straight-in approach to a fair 4-wire, using an updated meatball, lineup, AOA, and fire-light scan. I secured the engine in the landing area and taxied clear.

During my postflight debrief, maintenance said that the AMAD was hot enough to burn your hand through the skin of the airplane and nearly glowing red. It was then that I realized just how close I was to having a real emergency on my hands. The boost pump shaft had sheared, causing a loss of fuel to the oil-fuel heat exchanger. The AMAD worked as advertised, but past emergencies had produced catastrophic results: titanium engine fires caused by hot AMAD parts being injected into the jet engine. The extreme heat in the AMAD during the first few minutes of the emergency caused the AMAD PR switch to fail, giving me the AMAD PR caution.

I began to question the decisions that I'd made in the air. The jet had made it home and flew again that evening. But if NATOPS says to consider shutting down the engine and restarting for landing, should you shut down the engine and then decide? You can restart the engine prior to recovery if the situation warrants. Then again, why restart the engine if you know there is a serious problem with it? On a CAVU day with a steady deck, why not come back single-engine and avoid the possibility of a fire? Is it better to risk the engine and possibly the airframe because of fire or to risk the single-engine landing? Which has the higher risk? With a day straight-in and an LSO who knows you are a nugget, is a single-engine approach safe? On that day, I hadn't wanted to make a single-engine approach, but is that fear worth risking the aircraft? We had decided the landing was the greater risk. If the AMAD had come apart, we may have reevaluated our decision, but we followed NATOPS, and the aircraft made it back to the ship.

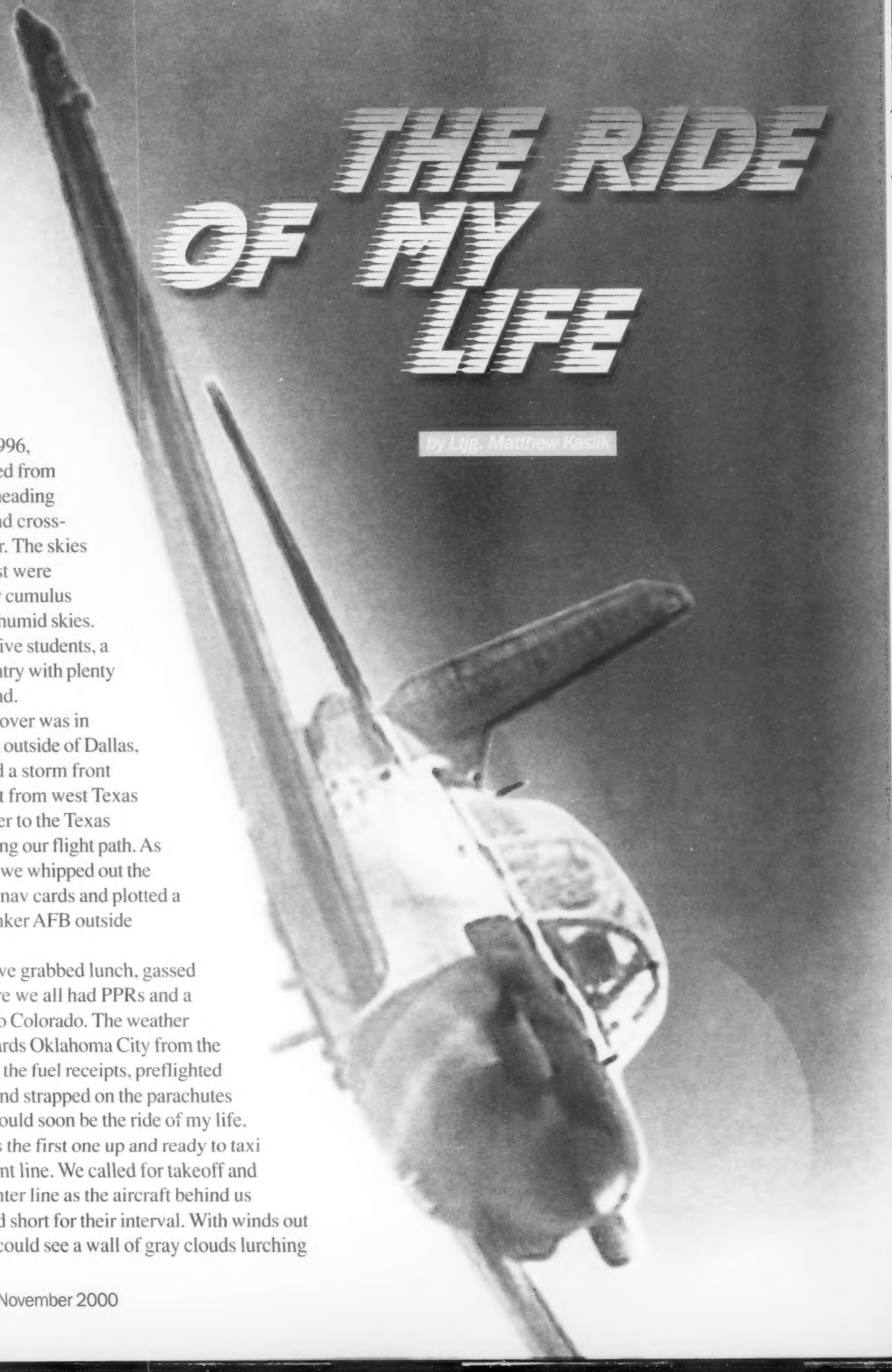
As a nugget, I learned more from this one flight than anything else on the detachment. The first and most important lesson was that when bad things start happening, even as a nugget, you know the airplane, and you can develop your own game plan before you dump it in someone else's lap. I'm not saying I should have had fast hands and started shutting down engines, but you can figure out what emergency you have, do your immediate NATOPS procedures, and then develop a game plan in your airplane.

Discuss that plan with your wingman and then call the rep. It will make his job easier, and he can add his experience and suggestions before you make your decision. He can give you important information that you have forgotten. You can let the rep decide whether the ship wants to bring you back single-engine and decide whether the conditions give you enough power for a single-engine waveoff. My rep didn't know the sequence of events and the quick progression of my emergency, and he might not have made the same decision had he been in the aircraft watching it happen.

In the future, I will make sure that I make my own game plan, talk to my wingman, and use crew coordination within my section first. Then I'll call for a rep to see if there is anything that we have forgotten or misinterpreted. While there is valuable advice to be gained from experienced pilots in your squadron, you signed for the airplane, and you are the one who is going to be responsible if you don't bring it back.

Lt. Childers flies with VFA-115.

Photo-composite illustration by Allan Amen



THE RIDE OF MY LIFE

by Ltjg. Matthew Kaslik

In August 1996, five T-34s launched from NAS Pensacola, heading west on a weekend cross-country to Denver. The skies over the Southeast were clear. Small, puffy cumulus clouds dotted the humid skies. Five instructors, five students, a six-leg cross-country with plenty of X's to go around.

Our first stopover was in Longview, Texas, outside of Dallas, where we learned a storm front heading northeast from west Texas was moving closer to the Texas panhandle, crossing our flight path. As diligent students, we whipped out the whiz wheels and nav cards and plotted a new course to Tinker AFB outside Oklahoma City.

Once there, we grabbed lunch, gassed up, and made sure we all had PPRs and a solid flight plan to Colorado. The weather was inching towards Oklahoma City from the south. We signed the fuel receipts, preflighted the turboprops, and strapped on the parachutes again for what would soon be the ride of my life.

Our bird was the first one up and ready to taxi out of the transient line. We called for takeoff and settled on the center line as the aircraft behind us waited at the hold short for their interval. With winds out of the south, we could see a wall of gray clouds lurching

northward, but our course of three-zero-zero degrees north shortly after takeoff took us toward friendlier skies. With three up and locked, fuel caps holding and navigation set, we climbed to our cruising altitude. I checked out with Departure and tuned up the next navaid. "Five hundred feet prior to level off," I announced over the ICS to my pilot (an experienced helo driver turned flight instructor). At 10,000 feet, we leveled off, trimmed up and were ready to press to the northwest. We believed the mammoth storm cell to the southwest was far behind us.

We'd been in VMC conditions since takeoff, but a swift, uplifting force overtook us, followed by sudden turbulence. Within seconds, we were bouncing around the sky. Quickly responding to our unexpected cruising altitude, I relayed to the pilot that we were at 10,500 feet. My instructor replied, "I know, let's find a good heading," trying to avoid any further turbulence. Shortly after, he was talking with Departure to see if our heading would avoid the weather. They told us to try heading three-zero-zero degrees. My instructor glanced over to his starboard wing and asked if three-two-zero degrees would be better, and ATC concurred. The ride was about to begin.

As we gradually turned toward that heading, I could see the sun's reflection off a pocket in the clouds forming a tunnel in the sky. Our nose was passing the opening when the floodgates opened, and we were going down! It felt like slipping down a powerful water slide, bouncing left and right. We were engulfed in gray clouds that harnessed unforeseen energy, dragging our T-34 downward. It felt like we were wings level the entire time, but I knew we were falling at an increasingly uncomfortable rate. The G's became very intense as my body sank into seat. I could hear my instructor yelling but not over the ICS, as his head bounced erratically in the front cockpit. My canopy popped open and slid backwards about 2 inches as my eyes caught the silver seal parting the canopy bow.

Without hesitation, I reached up with my left hand, shut the canopy, and seated the handle, as we bounced downward under the ever increasing turbulence. I began to squeeze all my muscles in my body and clenched my fists as I gritted my teeth, belting out a series of "hoooook" calls. I was losing peripheral vision, and I began to see charcoal-colored halos around my center of vision.

Three things raced through my mind. First, I thought that once we got out of the clouds, everything would be all right. Next, if I squeezed every muscle in my body and yelled "hook," I wouldn't pass out. Finally, the instructor would get us out of this terrible situation!

I heard "Attitude, attitude!" from the front seat, as the instructor tried to focus on controlling the aircraft. I glanced upward to the instrument panel, looking through two straws as my vision rapidly closed. All I saw was a very black gyro staring at me with a small, solid gray dot piercing my depleted vision. I could not believe we were in a straight nosedive! I squeezed harder and harder, repeating my three affirmations. I heard "Altitude, altitude!" My eyes darted to the pressure altimeter and caught the thin needle racing through 3,500 feet.

Frantically fighting with the plane, the pilot positively neutralized the T-34 controls and punched through the cloud layer. We were left wing slightly down with our nose almost on the horizon. The G-forces subsided. The gauges seemed fine, except for my G-meter, which read 9.7 G's! "That can't be right," I thought. "The needle must have broken and fallen to the right side."

Relieved that the ride was over, I still had the notion that we would press on with our hop. I began calculating a good heading when my instructor began telling the aricraft behind us to avoid our last heading vector. ATC asked if we had run into any severe weather. You can imagine our response.

My instructor relayed to the senior instructor that we would be returning to the airfield, because we had overstressed the plane (his gauge read 7.8 G's). I realized my gauge was correct, and that we were in worse shape than I had imagined. I decided to tell my instructor about my G count after we were on deck; both our buckets were full at this point.

After we landed, we scrutinized the turbo-prop and found that the whole left fuselage had suffered a great deal of overstressing. The step door and aft storage compartment had both buckled and were swinging in the breeze. The rudder was listing to the left. The port flap had the most pronounced damage: several three-quarter-inch dents and fractures dotting the entire flap, as if someone stabbed the underside with a screwdriver. The starboard side had only a few of these fractures. Apparently, we had experienced asymmetrical loading.

We'd plummeted 7,000 feet in 32 seconds, as the ATC controls had shown our plane fall down their screens. The flight doc was astonished that neither one of us had passed out (we hadn't been wearing G-suits). As for the wounded bird, it was stripped of its wings and hauled back to Pensacola for further review by NAS Patuxent River evaluators. They found the T-34 was salvageable; it is currently flying out of Pensacola with new panels and parts. This incident, classified as a Class C mishap, involved the second highest overstress of a T-34 where the crew survived.

Ltjg. Kaslik flies with VAQ-135.

I Didn't Know Rotor Blades Could Do That

by LCdr. John Keane

After graduating from the Aviation Safety School, I looked back over my flying career to identify flights that I could have handled differently. Here's the story of one flight that I can't seem to get out of my mind.

I was just finishing my second consecutive sea tour flying the SH-60F, first as a pilot in an HS squadron, then as the Combat SAR and ASW officer for the carrier air wing. My very junior copilot and I got a cross-country flight from NAS Jacksonville to Norfolk, where our aircraft would appear as a static display at an on-board change of command the next day. We were to land on our assigned carrier, which was at Pier 12. We briefed and filed our flight plan. Heavy winds were forecast for the Norfolk area.

The flight went smoothly until our gas stop in Cherry Point, N.C., where we got our first taste of the high winds. As my copilot taxied out of the fuel pits, we turned perpendicular to the winds. With a little too much collective and pedal input, we ended up on two wheels. Applying down collective and neutral pedals brought the helo back to a level attitude and gave me a good debrief item for after the flight.

The second leg to Norfolk was uneventful, and after about seven hours of flying what was supposed to be a five-to-six hour hop, we were at the ship. The winds had increased steadily during the flight and were reported as 30 knots, gusting to 45, the maximum at which we could disengage rotors.

While circling to land, we saw the winds were coming from the aft port side of the ship. We were asked to make a "down the throat" approach (which goes from bow to stern) and land on helo spot 4. With the flight deck clear of aircraft, we had plenty of room to maneuver. As I made my approach from the left seat with severe gusts coming from the starboard side of the aircraft, I had to apply a boot full of right pedal and a plethora of flight-control inputs.

I fought my way toward spot 4, and the LSE signaled me to land as soon as I achieved a stable hover. I landed, slightly to the right of the spot, and decided there was no reason to try to reposition a couple of feet, so we shut down. I remember my copilot remarking that it really was "a varsity day."

After the post-landing checks, we began the shutdown checklist. We brought both power-control levers to idle and waited for the engines to stabilize. When the No. 2 engine was stable, we secured the power-control lever and fuel-system selector lever, and the rotor slowed normally. The LSE called the droop stops in, and we secured No. 1. As Nr decreased to about 55 percent, I noticed something unusual. The main rotor blades began to rise on the starboard side of the aircraft and dive for the deck on the port side. I immediately called for my copilot to apply the rotor brake to stop this nonsense. He slammed it on, but there was no pressure. He pumped the brake to restore some pressure, but it was futile. We were going to have

to watch the rotor blades dance their way to a halt. As the rotors slowed, the blades flexed up on the right and dove to within a few feet of the deck on the left. Eventually the madness stopped, and I let out a sigh of relief. Other than some damaged droop stops, the aircraft was in one piece. I reviewed the PLAT tape of the event later and rejoiced that my squadron hadn't had to convene an aircraft mishap board. I recall thinking, "I didn't know rotor blades could do that."

What had gone wrong? If this landing had turned into a mishap, one of the causal factors would have been overconfidence in my ability to land the aircraft in questionable winds, when I could have landed ashore and brought the plane aboard the next morning. I didn't realize how the blades would react to the wind blowing straight up as they hit the side of the ship. We also could have landed in the middle of the deck (since there was plenty of room to maneuver) and let the V-1 division put the bird on the spot. As it was, we landed too close to the deck edge with the blades at—if not over—the deck edge (a position I later discovered was prohibited by CV NATOPS for good reason).

LCdr. Keane flies with HS-5. He was safety officer when he wrote this article.

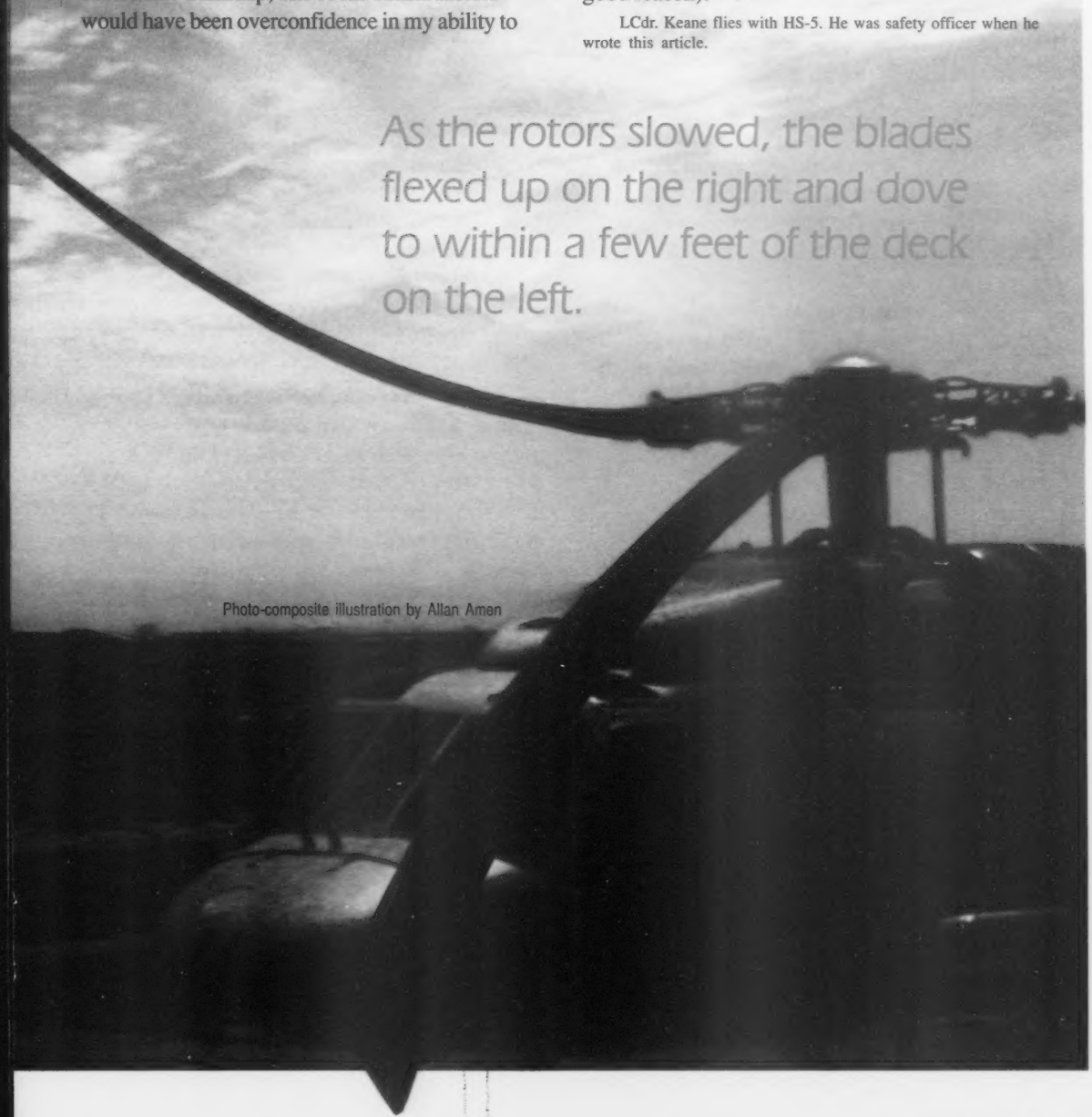


Photo-composite illustration by Allan Amen

Taxi and a Half

by Lt. Kerry Kuykendall

Our squadron was aboard for a standard fleet CQ det. I had completed four day traps and was ready to fly that night. All I needed was four night traps to be complete.

As we briefed, we discussed whether or not we should wear dry suits, since the water was 51 degrees. We decided not to wear the dreaded bags. We hustled to the wardroom for a quick bite, then my RIO and I manned up for the 1900 launch. Our jet was parked on the fantail, and I noticed how dark it was out there. We taxied to the catapult for our night CQ period.

After our third trap, we headed to cat 1 for our last cat shot and trap. A Hornet was on cat 2. We taxied into the cat track, and the holdback fitting was hooked up. We got the signal to kneel the jet and waited to be taxied into the shuttle.

I noticed some commotion behind me on the left side of my jet. Troubleshooters were trying to say that the jet was down for some reason. Just after that, the hydraulic-pressure light lit up on my master caution panel. The combined side hydraulics read 2,600 psi (instead of 3,000). The bi-directional pump (back-up mechanism) was holding the pressure at its current level. I told my RIO, and she asked tower for a rep so we could relay this to our CATCC rep.

As we realized that the jet was down, all I could think about was that I only had one more night trap to complete. It looked like I was going to have to come back out the next day to finish up.

During our chat with the rep, the deck crew had taken out the holdback bar, and the yellowshirt gave us the signal to unkneel the jet. I lifted the switch to comply, but nothing happened. Then the yellowshirt gave me the signal to hold the brakes. My feet had been on the brakes the entire time. I wondered why he was giving me this signal, until I realized that we had started to move.

I transmitted on the ICS to my RIO, "Lost brakes." She transmitted this over tower frequency. My lights came on, and I put the hook down. I pumped the brakes once and then pulled the parking brake handle. I initially thought pulling the parking brake had stopped us, but it hadn't. I figured we'd just ground-loop the jet or steer it into the Hornet next to us on cat 2. Going through the lost-brakes bold-face, I cycled nosewheel steering, checked that the anti-skid switch was off, and tried to steer us to the left. Nothing happened.

We continued to roll toward the catwalk to our right. I felt the first twinges of panic. We were probably going over the edge and would have to eject. Once the nose of the aircraft is over the edge, we would be out of the ejection envelope and would run the risk of ejecting into the water or the side of the carrier. Our decision not to wear our dry suits wasn't looking too cool.

We were pointed at the widest part of the catwalk, with a CIWS gun mount past it. Based on our taxi speed, I knew we were going over the scupper, and I was 99 percent sure we were going to stop in the catwalk. I said to my RIO, "Stay with

I initially thought pulling the parking brake had stopped us, but it hadn't.

me, stay with me." I knew her hand would be on the ejection handle. We went over the scupper and stopped approximately 30 degrees nose down, with our nosewheel in the cat walk.

Tower was telling us that they were chaining us down and that we weren't going anywhere. I wasn't going to be sure of that until we were out of the jet. We kept the engines running to ensure our ICS was working in case we still had to eject. Tower then told us that we were chained down, and we shut down the engines. We safed the ejection seats, raised the canopy and climbed out of the jet.

I learned several lessons. First, don't end up wishing you had your dry suit on when you are faced with an ejection. Wishing isn't going to help. Next, hydraulic failures are serious business, especially around the boat. I should have insisted that we get chocked as soon as I realized there was a hydraulic problem.

Think about what you'll do if you lose brakes on the flight deck. Where will you stay with the jet? Where will you eject? I had thought about this situation before, and I'm convinced this saved us from ejecting.

Ideally, your RIO trusts your decisions, yet will pull the funny yellow-and-black handle if needed. After reviewing the PLAT tape of the incident, nobody would have faulted us for ejecting. Some people were shocked that we hadn't.

Lt. Kuykendall flies with VF-32.

by Ltjg. Ben Lien

Seeing What You Want To See

It was a beautiful day in the eastern Atlantic, just west of the Strait of Gibraltar. The weather was broken at 2,000 to 3,000, just good enough for a case one pattern with a cloud layer in the middle. We were returning from a BAM flight, one of the few opportunities for us to forget about antenna steering and maneuver the airplane.

Flying the pattern was uneventful, despite the clouds at the top of the stack. We managed to find our interval as we passed over some holes in the clouds, where we could answer the question, "Where is everybody?" It turned out that everyone else was below the clouds, trying to see what was going on.

Once we were below the clouds, we were able to see a section of Hornets and verify that we had the correct interval. After one more trip around the circle, we descended to the initial and broke at two miles upwind.

Once on downwind, the pilot put down the gear and flaps. On the Prowler, as the flaps come down, the horizontal stabilizer is supposed to "shift," increasing pitch authority at slow speeds. If it doesn't shift, NATOPS warns that you might not have sufficient pitch authority to maintain level flight below 200 knots.

My first indication that the stab wasn't shifting was when the pilot said, "Still waiting on the stab. I'm keeping it above two hundred knots." Strike one for me: the ECMO is supposed to watch the integrated position indicator (IPI) as the stab shifts.

I looked over, expecting to see a barberpoled stabilizer on the IPI, but saw a solid background. "Shifted," I said to the pilot.

"No, it's still clean," he replied. I had seen a black background on the IPI, and made the mistake of seeing what I expected. Strike two for me. A shifted stab has a white background, just like the flaps-and-slats-down indicators to either side of it. If the pilot hadn't caught my error, we could have slowed into an uncontrollable descent. That's why they teach crew coordination.

Crew coordination helped again a moment later, when I passed control of the radios to the back seat so I could read the checklist. At the time, it seemed like a lot of time had gone by without me doing anything helpful. ECMO 3 explained our problem to tower while the pilot and I stepped through the checklist.

The checklist called for pulling the flaps-slats circuit breaker, which is number 2 on row 4 of the pilot's circuit-breaker panel. I had written the location of each CB in my checklist next to the step that called for it when I was a RAG student. This was the first time I had needed the information, but it was worth the little effort it had taken to have it ready. Later, the pilot commented that it would have been hard to find that circuit breaker and fly if it had been night. Having the location ready for him minimized the time he had to spend with his head down reading circuit-breaker labels.

The pilot turned on the assisted-spin-recovery switch, which shifted the stab as advertised. He reset the circuit breaker, completing the checklist, then hooked in at six miles for a straight-in to a normal landing.

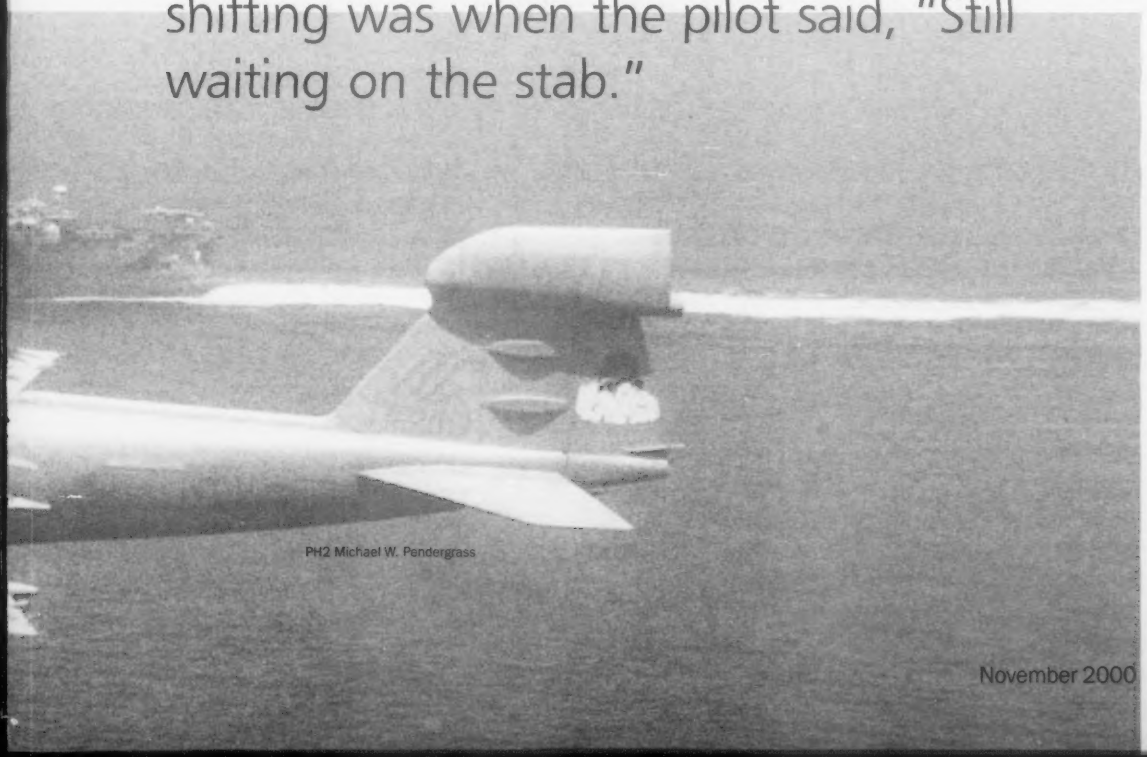
Once in the wires, the wings cleaned up normally. I was ready to fold the wings when the pilot pointed out that the less stuff we moved, the less damage we'd do.

In retrospect, leaving the flaps down after landing would have been even better. The maintainers later told us that moving the flaps could have wound up the broken end of the cable, requiring an engine drop to retrieve it. In our case, the cable had broken in a place where it could be reached fairly easily.

The Prowler community has had a few prior occasions of stab shift failure, some with considerable loss of altitude before corrective measures were taken. When this problem crops up, it only becomes severe if it goes unnoticed. Our crew's awareness of these prior incidents and their potential consequences allowed us to catch this problem before we were threatened. Or perhaps we'd been threatened the whole time—after all, it was an emergency.

Ltjg. Lien flies with VAQ-140.

My first indication that the stab wasn't shifting was when the pilot said, "Still waiting on the stab."



PH2 Michael W. Pendergrass

BUCKING BRONCO AT THE RAMP

by Ltjg. Jeffery Menna

Photo by PH3 Christopher Mobley
Photo-modification by Allan Amen

Just when I was about to fly away, my hook snagged the 1 wire, and the jet suddenly stopped.

It was a miserable day in the Sea of Japan, and it was only going to get worse. We were finishing up Foal Eagle '99 off the coast of Korea. The weather was as bad as any we'd seen since this short cruise began: a bitter cold day, with an 800-foot overcast ceiling and driving rain. Because of the weather and my relative inexperience in such conditions (all my flight training had been accomplished in sunny Corpus Christi, Kingsville and Jacksonville), I kept a close eye on things that usually did not occupy my scan. I looked for icing on the leading edges of my wings, and checked my engine anti-ice and pitot heat switches.

The tactical portion of the flight went as planned. I checked into marshal and received instructions to hold at 6,000 feet. Knowing there was a thick cloud layer at that altitude, I elected to hold above the overcast until just prior to push time, in order to stay out of the visible moisture and possible icing conditions. Had I paid closer attention to the ship's weather brief and known where the freezing layers were, perhaps I would have had nothing to worry about. Instead I started to get behind the jet as I entered my holding altitude, and I hadn't even begun the approach yet.

During my one quick turn in holding, I kept checking the leading edges of my wings for icing. I had never been in icing conditions, nor had I never seen it accumulate on my wings.

I pushed on time, and everything seemed to be going as planned. I leveled off at 1,200 feet, still in the clag and still not keeping my normal scan. My normal habit pattern was to use the baro-altitude-hold feature of the autopilot only in marshall, then use only auto throttles during the push and when inbound under 1,200 feet. This approach would be different.

As I was transitioning the aircraft to the landing configuration, Approach contacted me with some extraneous instructions. Since I still felt behind the jet, I started to

select (colonize) baro altitude hold so I wouldn't have to worry about altitude while I was coordinating with Approach. But as I was doing this, I realized the instructions were benign and quickly deselected (decolonized) the baro altitude hold, using the up-front control (UFC) scratchpad, without thinking a thing about it. As Hornet pilots know, the right way to make sure you have disengaged all autopilot modes is to press the paddle switch on the control stick. There were two telltale indicators that the autopilot was still functioning in some capacity. I would fail to recognize both.

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As I dirtied up at eight miles and began to trim the aircraft using the Bit MI page, I did notice the second sign that something peculiar was happening. As I trimmed to 3,200 on the Bit MI page, I noticed that the digits would not hold at exactly 3,200, but fluctuated plus or minus 100. To a Hornet pilot with half a brain, this should obviously have indicated that the plane was still in an autopilot mode. The plane was constantly trimming for one G flight, thus changing the trim setting. When I saw the fluctuating trim setting, I didn't give myself time to think about what I was seeing and figure it out. It was getting down to the short hairs of the approach, and I was distracted—nay, obsessed—by icing. I never came back to the Bit MI page to solve the mystery, and I never noticed the A/P advisory on the bottom of the DDI. I was going to have to do my best, trying to land a fly-by-wire aircraft onboard an aircraft carrier in bad weather, with the jet still in autopilot.

It was a typical day at the boat in bad weather. I had no needles, no ILS glideslope, and the ship only gave me an ASR approach down to 600 feet. I made a smooth tip over at three miles and didn't notice the jet handling any differently. Having backed out of the autopilot mode, there was no master caution light or AUTOPILOT caution when I pushed out of 1,200 feet. The approach to the ball call went smoothly, and the jet handled normally. I broke out of the clouds at 700 feet and began working on my lineup, while flying my self-contained numbers to get to a good start. Approach told me to call the ball, and I began to transition to the lens. "Two Oh Four…clara." I couldn't see the ball because of all of the rain.

"You're high." So much for my self-contained numbers to a good start.

"You're on lineup, you're a little high..."

"Ball."

"Roger ball." Things seemed to be going pretty well, now that I was back on glideslope and making small and deliberate corrections. Then, as I hit the rooster tail, I felt my rate of descent decrease, and the ball began to rise. I made a quick, power-off correction and a quick influence-down with the nose. As I did this, the jet felt as though it was trying to push up with the nose as I was trying to push down. Then I was through the rooster tail and into the burble where I began to make the opposite correction of pulling back on the stick and adding power. Again the jet fought me in the opposite direction, and the magnitude of the oscillations began to get larger. Because the control-stick steering was engaged, the jet was trying to keep one G on the aircraft and was trimming in the opposite direction of my inputs.

The jet made one last, large, nose-down pitch with the stabilators moving full throw, and I was looking at a glare shield full of flight deck. All I could think to do was to get out of this bad situation and try again. Attempting my own waveoff, I lit the blowers and let go of the stick to let the jet settle down. The nose began a final nose up pitch, and just when I was about to fly away, my hook snagged the 1 wire, and the jet suddenly stopped.

Things could have ended much worse than they did: I could have lost the jet and killed myself. Having recently finished LSO School, I had seen the same autopilot landings on board ships. I'd witnessed what can happen when the final oscillation prior to touchdown is a nose-down pitch, resulting in extensive damage to the nose gear, with the pilot lucky to have caught a wire.

It is now part of my scan to hit the paddle switch when I tip over from 1,200 feet on an approach. I randomly hit the paddle switch throughout a flight so as to make sure that I am never in an autopilot mode when I don't want to be. When I think of uncontrolled pitch movements in the landing configuration, the first thing that comes to my mind is hitting the paddle switch.

We need to use our experience and judgment to make good decisions when they really count—especially during the takeoff and landing phases of flight. You won't have enough time to make the right decisions unless you've gone over emergency scenarios and asked yourself what you'd do. ✈

Ltjg. Menna flies with VFA-27.

BUCKING BRONCO AT THE RAMP

by Ltjg. Jeffery Menna

Photo by PH3 Christopher Mobley
Photo-modification by Allan Amen

Just when I was about to fly away, my hook snagged the 1 wire, and the jet suddenly stopped.

It was a miserable day in the Sea of Japan, and it was only going to get worse. We were finishing up Foal Eagle '99 off the coast of Korea. The weather was as bad as any we'd seen since this short cruise began: a bitter cold day, with an 800-foot overcast ceiling and driving rain. Because of the weather and my relative inexperience in such conditions (all my flight training had been accomplished in sunny Corpus Christi, Kingsville and Jacksonville), I kept a close eye on things that usually did not occupy my scan. I looked for icing on the leading edges of my wings, and checked my engine anti-ice and pitot heat switches.

The tactical portion of the flight went as planned. I checked into marshal and received instructions to hold at 6,000 feet. Knowing there was a thick cloud layer at that altitude, I elected to hold above the overcast until just prior to push time, in order to stay out of the visible moisture and possible icing conditions. Had I paid closer attention to the ship's weather brief and known where the freezing layers were, perhaps I would have had nothing to worry about. Instead I started to get behind the jet as I entered my holding altitude, and I hadn't even begun the approach yet.

During my one quick turn in holding, I kept checking the leading edges of my wings for icing. I had never been in icing conditions, nor had I never seen it accumulate on my wings.

I pushed on time, and everything seemed to be going as planned. I leveled off at 1,200 feet, still in the clag and still not keeping my normal scan. My normal habit pattern was to use the baro-altitude hold feature of the autopilot only in marshall, then use only auto throttles during the push and when inbound under 1,200 feet. This approach would be different.

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select (colonize) baro altitude hold so I wouldn't have to worry about altitude while I was coordinating with Approach. But as I was doing this, I realized the instructions were benign and quickly deselected (decolonized) the baro altitude hold, using the up-front control (UFC) scratchpad, without thinking a thing about it. As Hornet pilots know, the right way to make sure you have disengaged all autopilot modes is to press the paddle switch on the control stick. There were two telltale indicators that the autopilot was still functioning in some capacity. I would fail to recognize both.

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Ltjg. Menna flies with VFA-27.

I Don't Like the Looks of That Large Black Spot

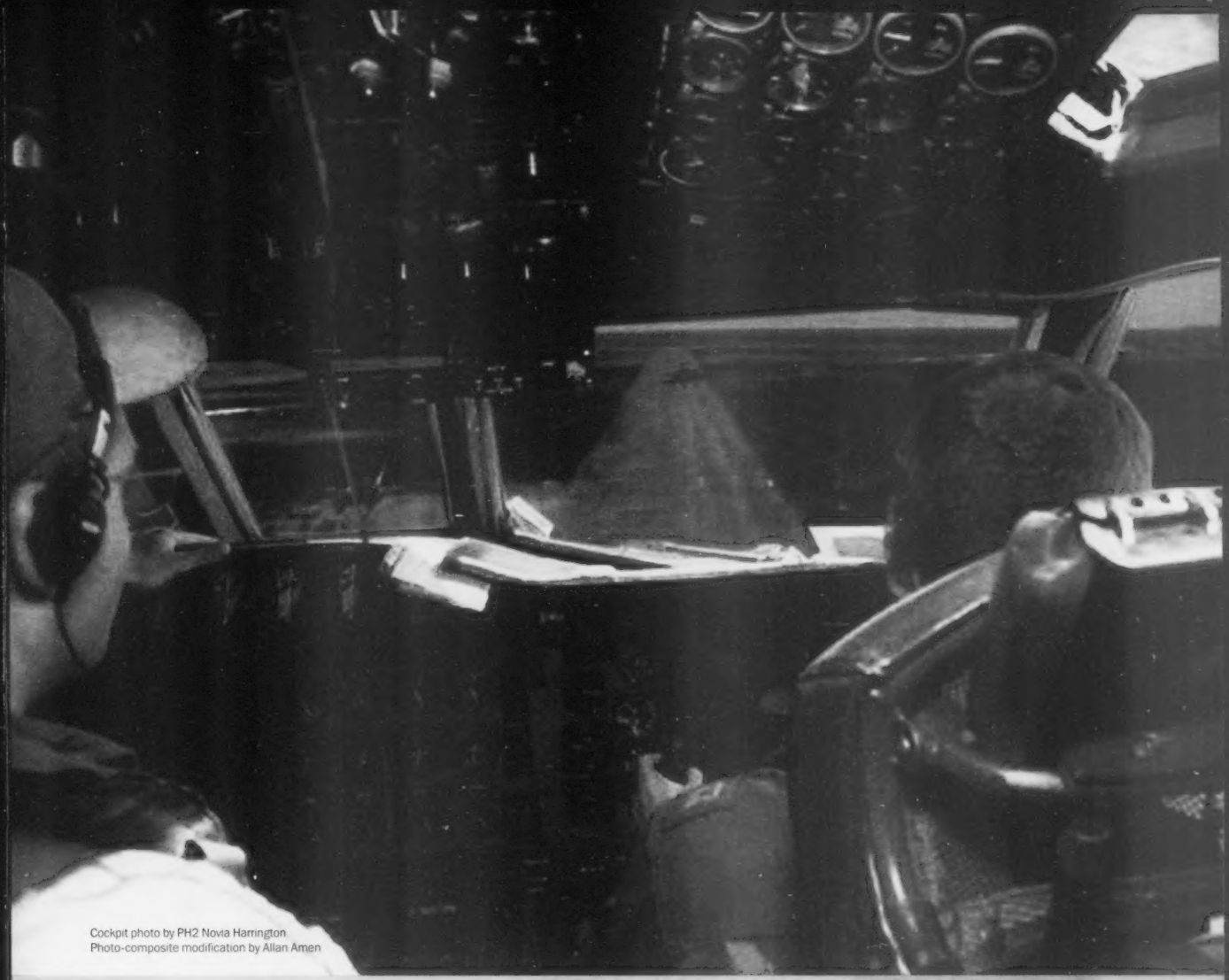
by Lt. Erik Ostrom

We launched on time on a standard pilot trainer, leaving behind the peaceful confines of beautiful Rota, Spain. I was a new IP with 100 hours of the coveted "I" time in the logbook. After an uneventful hour in our high area, where we practiced maneuvers and simulated malfunctions, we set course for an outlying Air Force base.

Flying VFR on a CAVU day, we requested an IFR pick-up from Spanish ATC to facilitate some approach training. Since ATC couldn't comply with our request, I decided to execute the overhead break. You jet guys may not think much of it, but those of us lucky enough to fly the venerable P-3 enjoy this 250-knot, 2.5G maneuver. With the limited visibility in the P-3, it is exciting to see the horizon cutting across the windscreen at 60 degrees angle of bank. The sight of a lumbering P-3 executing this maneuver is actually impressive when viewed from the ground.

The Spanish controller switched us up to tower freq, and we reported the initial for the break. Coming in, we noticed a Spanish helo preparing for takeoff at the approach end, and another, older model twin-engine awaiting its turn at the hold short. We hit the numbers and rolled into 60 degrees, holding back ever so slightly on the yoke to maintain our altitude as the speed bled off. As we reached the abeam position, I passed the standard gear report to the tower, and the Spanish controller promptly cleared us for the option. Turning final, I made sure the checklist was complete and repeated the approach speeds to the PAC. The FE said he thought he saw a large black spot on the runway. We elected to continue the approach, planning to wave off at 500 feet if we couldn't figure out what it was. Passing through our self imposed DH, the spot was still indiscernible. Feeling uncomfortable and keeping with our interim plan, I directed the PAC to wave off and slide us inside of the runway, away from any traffic that might be coming our way.

As we neared the threshold, climbing through 700 feet, everything came into view. There, hovering some 20 feet above the approach numbers, was that same Spanish helo! Apparently, we had been cleared for the option, with traffic still on the runway. How could this have happened? I requested downwind as we climbed to pattern altitude and was greeted by the local USAF controller. He quickly requested a clarification of what had just transpired. I filled him in and asked



Cockpit photo by PH2 Novia Harrington
Photo-composite modification by Allan Amen

him to prepare a clearance for us to RTB. It would seem that today was not a good day to fly there.

Most naval aviators get their flight time in the States or around the boat. The P-3 community, however, spends entire tours forward-deployed, operating almost exclusively outside CONUS. We quickly learn to decipher comms that are in broken English and to handle situations where your request just doesn't translate to the native tongue of the host-nation controllers. A common problem is that local civil and military aircraft often communicate on discreet frequencies or in their own language, leaving the rest of us to rely solely on the basic VFR scan to keep our SA at its highest. Furthermore, at bases with U.S. components, there are often two controllers, one for U.S. traffic, and the other handling host nation flights.

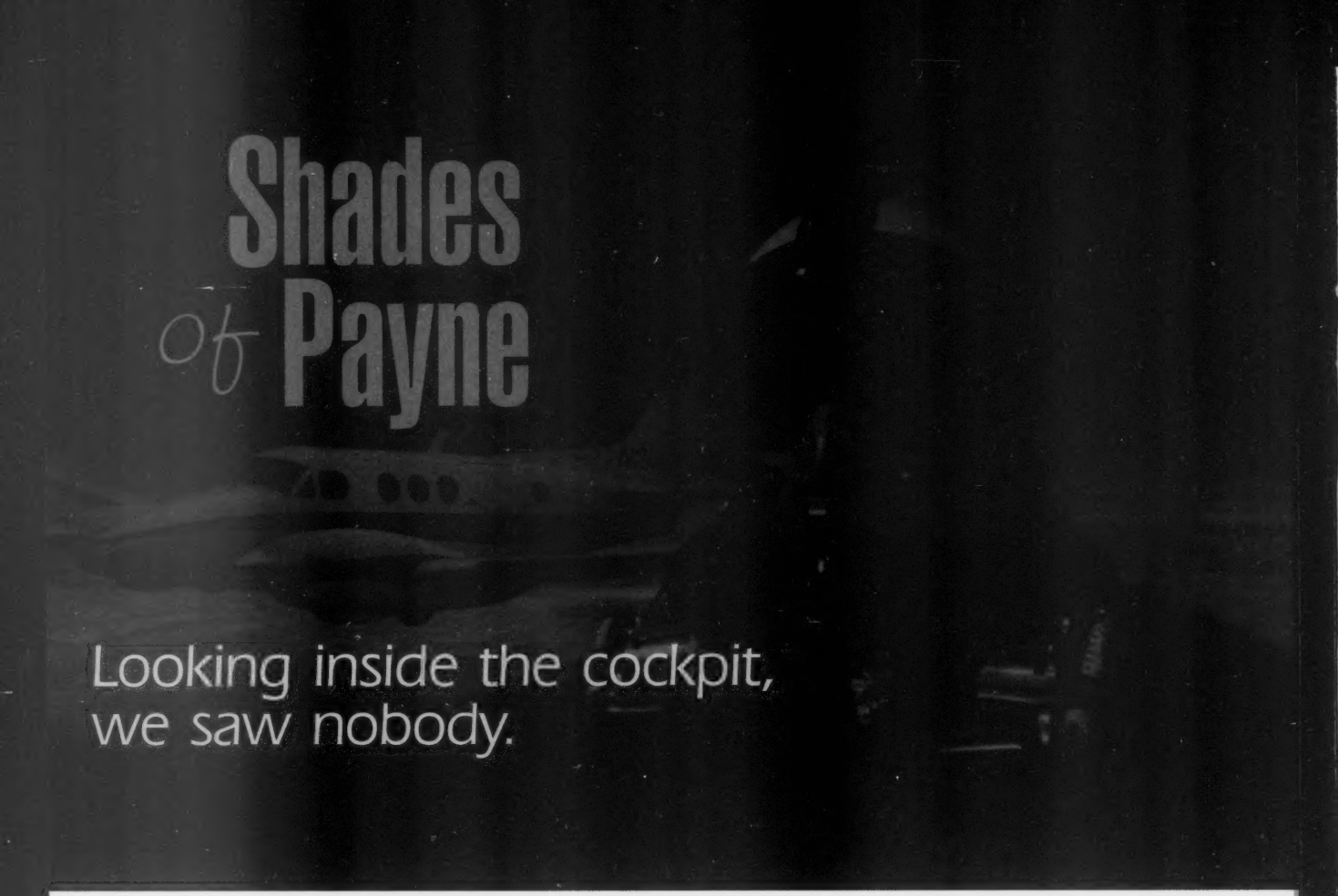
Our incident wasn't the first, nor will it be the last. The local controller was apparently overwhelmed by the amount of traffic at this sleepy little base. We would normally have been controlled by USAF personnel, but we weren't handed off, resulting in a possible language barrier and a potential mishap.

One of the challenges of flying (except for the helo bubbas) is that you can't pull over and think about what to do next. We constantly update our mental pictures and sometimes operate with temporary plans, while we revise the master plan.

Always keep your head out of the cockpit and have a plan ready. The guy in the tower isn't going to die if you hit someone or the ground.

Lt. Ostrom is an instructor pilot with VQ-2.

Shades of Payne



Looking inside the cockpit, we saw nobody.

by Capt. Kevin Kretzschmar

I had an interesting hop on May 23, 2000, a Tuesday night. I was flying with two other squadron FA-18s, conducting a radar-intercept training hop 80 to 100 miles off the San Diego coast in a warning area. At 1855, we heard a call from Beaver Control. They told us about an aircraft in the area that nobody was talking to. It had just appeared on their radar scope, and it was heading our way. We rogered up and continued with our mission.

Several minutes later, Beaver Control came back up on our frequency and told us to stay above 15,000 feet, because the mystery aircraft was now closer (at 10,500 feet). They still hadn't been able to communicate with it, and the last radio transmission from it had said something about a person on board being sick. Neither Beaver Control, LA Center nor SoCal Approach had been able to talk to anyone in this aircraft for quite some time. Beaver asked if we could investigate. We agreed, knocked off our mission, and sent the other two aircraft home. (They were approaching bingo fuel.) We got an initial vector of 140 degrees for 10 miles (behind us). We turned around and found the radar contact on our scope within seconds.

We locked it up and began to chase it down. The aircraft was heading 210 degrees, at 10,500 feet, doing 190 knots. It didn't take long for our 500-knot Hornet to catch the twin- engine, Beechcraft King Air. We gained a tally and slowed to join on its right wing. We lowered the flaps to half, to help us maintain controllability at 190 knots. We settled in 3 to 5 feet off its right wing. Looking inside the cockpit, we saw nobody.

That's right, nobody. Nobody was at the controls, nobody was in the cockpit. We both uttered the usual expletive at once. We then inspected the passenger cabin. The Super King Air 200 holds up to 10 pax. We saw no movement in the passenger cabin, no faces at the windows,

no silhouettes of heads. The aircraft was on autopilot, droning 210 degrees toward the deep blue sea. It was heading directly opposite of land. We were now about 100 miles off the coast. Payne Stewart came to mind.

We crossed under the aircraft to get a look at the left side. Nothing. Empty cockpit, and to the best of our knowledge, empty passenger compartment. We relayed this information to Beaver Control. They asked us some questions, but the bottom line was that N24CV was in deep trouble.

We crunched some numbers and figured out what a no-kidding, emergency bingo-fuel profile to Miramar would be from our present position of 160 miles out. The sun was beginning to set and was creating shadows and glare, which actually helped us. We had now been flying with this aircraft for approximately 15 minutes, and we had about 10 minutes max left on station. We relayed this info to Beaver. As we closed in for a better view, we now saw what looked like a sharp contrast between the pilot's beige-colored, leather seatback and a whitish seat. After discussing it, we were convinced someone was in the pilot's seat, but he was slumped over, facing the copilot's seat, unconscious. We couldn't see anything but his back. We continued like this for another five minutes, relaying this info to Beaver and trying to raise comms with the pilot on both UHF and VHF emergency guard frequencies. We asked for an update of San Clemente Island's weather and reset a new bingo to San Clemente. We could now remain with the King Air for another five to seven minutes.

After several more minutes, our comms with Beaver began to fade, and we relied on a relay from a Navy S-3 that was operating near San Clemente Island to pass info to and from Beaver Control. We were now approximately 150 miles from San Clemente and 200 miles from San Diego. Then we hit some turbulence, and both aircraft pitched and rolled a little bit. As we watched, we shouted with joy as we saw movement in the cockpit. My best guess is that the turbulence was enough to wake this pilot from his unconscious or incapacitated state. He sat up but was obviously still out of it, as he swayed back and forth. He turned and faced front but then collapsed over the cockpit glareshield and instruments. "Noooo!" we shouted to each other. He remained there for 10 to 15 seconds then he sat back up, still swaying. He looked to his left and appeared startled to see a Marine Corps FA-18 flying on his left wing.

He reached up and put on his headset, trying to signal to us that he could not hear or speak (we figured his radio had failed). We both motioned for him to turn around with our hands. He swayed a little more, focusing on his instruments and started a right hand turn. We cheered and, for a second, breathed a sigh of relief. We were now heading 030 degrees, directly for San Diego. He was still not coherent, as he swayed back and forth, at times resting his head on the glareshield. We passed this info on to Beaver Control, along with his current latitude and longitude, altitude, heading, and airspeed. We were now emergency fuel.

It was my first bingo-fuel profile. We accelerated to .82 Mach and climbed at that constant speed to FL390 for the 120-mile flight to San Clemente. Leveling off and throttling back to 256 knots, we hoped for the civilian pilot's well-being. We landed at San Clemente just before dark. While sitting in the fuel pits, we asked the tower for the status of the King Air. They replied that Beaver Control had lost radar contact approximately 10 minutes after we left. Our hopes suddenly sank. We were fairly certain that the pilot either blacked out again or ran out of fuel. Fifteen minutes later, we were refueled and airborne again, asking Beaver if they needed any assistance. They told us that the weather in the area was now 400-foot overcast, and there was a Navy S-3 on station and several Navy ships en route. We headed toward home for an uneventful recovery. We were upset that it ended the way it had.

I had been flying with Lt. Hunter "Roach" Ellis, who's an instructor with me. He called the Coast Guard after we landed to find out the status of the King Air. The pilot had survived! He had been picked up and was being flown to a Navy ship in the area for treatment. We were relieved and curious. Did he flame out? Did he crash? We didn't find out until the next morning. Roach called to tell me to come in for a meeting with the media. I showed up and was informed by the press at Miramar that the pilot had apparently flamed out both engines (fuel starvation). He then dead-sticked it into the ocean, just at sunset and had survived the impact. He climbed on top of the aircraft to await rescue. It wasn't long before an aircraft and a helo arrived on the scene, using the coordinates we had passed. He was plucked from the 60-degree Pacific and flown to the Navy ship for observation and treatment. Amazing!

The next day I was interviewed by four television stations, two radio stations and four newspapers. We were part of the No. 1 news story in San Diego and

Continued on page 31

shattered Sidewinder

by Lt. Kyle Miller

As a nugget RIO approaching the middle of a cruise, I was sitting in the ready room awaiting my next trip up the JO stairmaster to the tower for another pri-fly. I'd been left off the schedule that day to give everyone else a chance to catch up on flight hours. I was looking forward to a good run on the treadmill and a slider before the roll 'em that night. The skipper walked in and changed all that in a heartbeat. Since he had some business with CAG and couldn't fly (a rare occasion, to say the least), he needed me to take his afternoon hop. "No problem, skipper," I said. I looked at the schedule and then tried to pick my jaw up off the floor. He was letting me go on a combat mission into Kosovo with another nugget.

With the war in Kosovo slowly winding down, we were well-versed on the mission: FAC(A) escort. We'd both done it numerous times, so the brief was standard. The FAC(A)'s

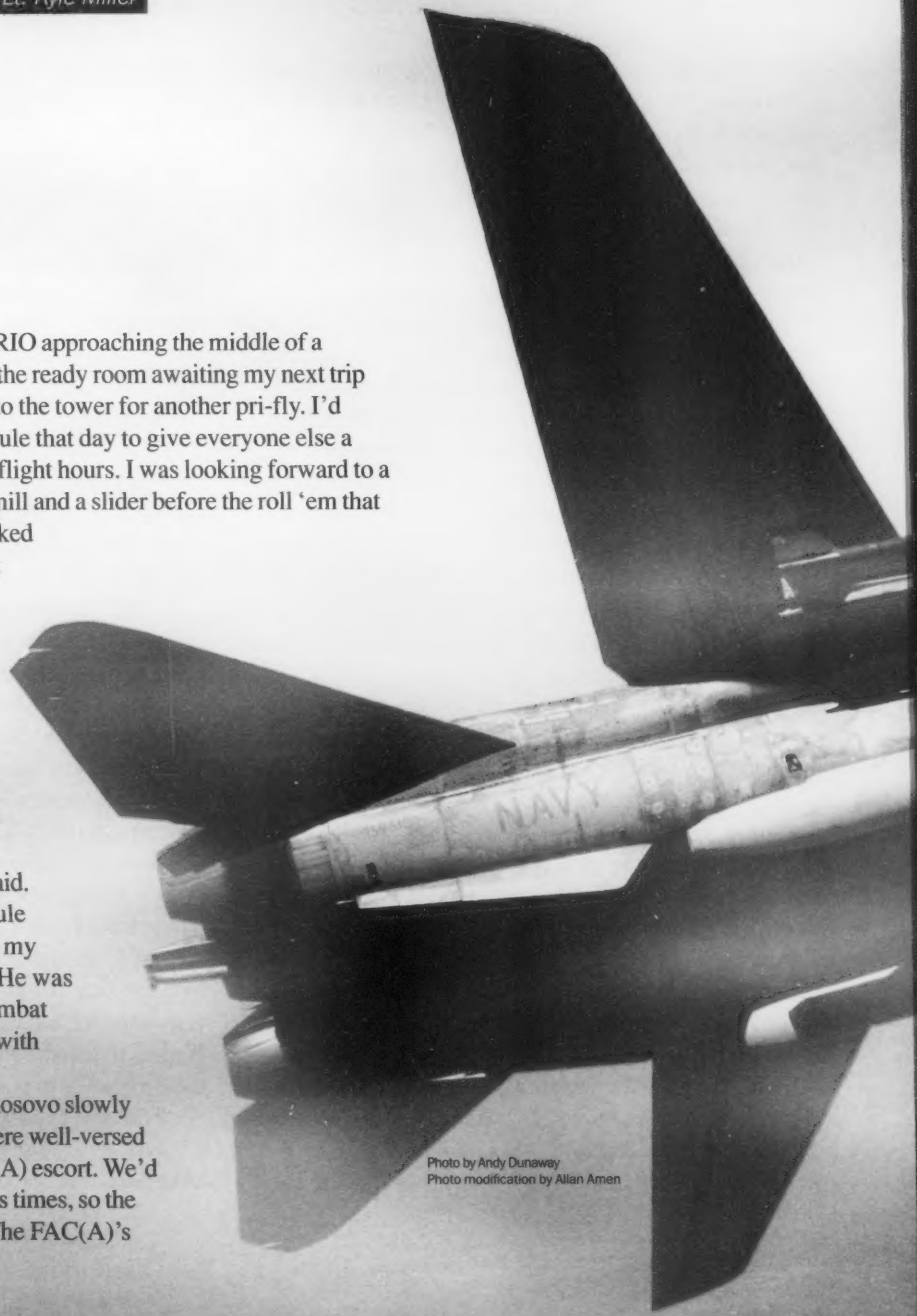


Photo by Andy Dunaway
Photo modification by Allan Amen

direction was clear—join up, shut up, and tell us if you see anything.

We launched, rendezvoused with our lead, and headed toward our ingress point. The nav and comm plan having been ingrained, we got our gas, checked in with control (aka Cyclops), and pushed in country.

The weather was typical for the region, with build-ups coming in from the north, covering most of Kosovo but allowing clear tanker tracks to the south. We worked our way around the clouds and into some clear spots in the eastern AOR to do some work before we tanked again.

The first look around didn't show much activity. The Serbs were being quiet and letting us scour for targets in peace. After an hour or so of finding nothing, we decided to hit the tanker and try to find another spot.

Heading south to the tanker tracks, we realized the build-ups were getting bigger and harder to avoid. Snuggling up to the lead, we realized we were getting boxed in and had to head through a thin spot to make it to the tanker track. Cyclops told us the track was clear, so there wasn't anything to worry about...almost.

The goo got thicker and thicker, and we finally lost sight of lead. After a few quick calls, we banked left and climbed a couple thousand feet to deconflict. With lead on radar, we were sitting pretty, waiting to break out into open.

As I looked around to the right, I noticed ice building on the intake, all the way to the wing, with one minor exception: The Sidewinder seekerhead wasn't covered; it was shattered. I let the pilot know, but he was way ahead of me and had already turned on the anti-ice. Then, to make

Snuggling up to the lead, we realized we were getting boxed in and had to head through a thin spot to make it to the tanker track.

things interesting, we ran into severe turbulence and a nice negative-2G spike that sent us into the canopy.

A few seconds later, we popped out into blue skies over Albania, with our lead a few miles to the west. "The skipper is going to kill us!" we proclaimed, almost in unison, as we realized everything was fine, and we were starting to get rid of the ice.

We joined up and let lead look us over to see if anything else had gotten destroyed. (We were glad the LANTIRN pod was stowed.) We checked out fine, hit the tanker, and headed back north to give the Serbs another look.

Not wanting to relive the last situation, we looked harder for clear air to transit. No luck to the east, no luck west, no luck anywhere. The other FAC(A) section was having ditto, so we decided to try over the top. Getting a running start (the F-14A's Pratt & Whitneys need a little help, sometimes), we stroked the burners and headed for the mask-on-osphere.

As we got our marshal instructions and started to break away from lead, we got our final surprise of the evening.

Passing 33,000 feet, we started to overtake lead, so we came out of burner momentarily. Lead started to pull away passing through 34,000, but in the thin air, putting the "A" into burner is risky. We maintained position until 36,000 feet but started to fall off because of the high AOA required in the thinner air. Lead was pulling away. We didn't want to snuff both motors and risk trying to restart them in the frosty goo below, so we started leaning to the west into a clear spot in Albanian air space.

We called lead to let him know our situation and our orbiting position but got no response, since he was working the freq drill back into the target area. After several calls with no reply, we finally told Cyclops where we were. (We didn't want to conflict with the strike packages, and we wanted to give our lead a heads up.) We found out Kosovo was socked in and the weather was getting worse (go figure!). Our lead was heading our way to transit back to mother for the good-deal night recovery.

Being a couple of nuggets from the same RAG class and having gone through a particularly colorful flight, we filled the transit back to mother with discussions of what had just happened. We were glad it was over. We finally started talking to marshal and got ready for the Case 3 recovery.

As we got our marshal instructions and started to break away from lead, we got our final surprise of the evening. My pilot lost his VDI (the pilot's primary attitude reference and best friend at night). After several minutes of troubleshooting and cycling the circuit-breaker, we decided it was a lost cause and reported it to marshal, so our skipper would know his nuggets were about to make a varsity play for the boat.

We discussed our crew coordination, including what the pilot wanted to hear coming down the chute, so we could suitcase the approach as much as possible. We made the approach without incident to an OK 2-wire…not too shabby.

Over a debrief slider, we came up with a few ideas as to why our potentially disastrous hop worked out OK. First, we decided that our emphasis on crew coordination and talking each other through the problems kept us from doing something stupid (the bonus of a two-seat cockpit). Second, by sticking to NATOPS and flying conservatively, we avoided becoming a bigger threat to ourselves than the Serbs were.

Surviving our first nugget-nugget flight, we opened the door for more opportunities in the future. The skipper even chuckled about the Sidewinder.

Lt. Miller is a RIO with VF-14.

PAYNE *Continued from page 27*

and Orange County—some positive press for the Marine Corps, after almost continuous negative press of late, especially for San Diego and all of those noise-abatement and chopper protests.

The media cornered the pilot of the King Air in his home near Escondido. Maybe the media didn't air that part, but during his interview, we didn't hear any thanks to the military for saving his life. He had millions of dollars of Marine Corps, Navy and Coast Guard assets working for him, not to mention the Marines and Sailors operating those assets. The pilot wasn't talking a whole lot, as I'm sure the FAA and NTSB will be all over him for interviews. He did mention something about food poisoning.

For us, a routine training mission had become the most non-routine, real-life mission—a perfect, unplanned rescue.

Capt. Kretzschmar and Lt. Ellis are instructor pilots with VMFAT-101.

What Happened Next

Lt. Greg Collins of VS-41 and LCdr. Eric Hannum of the reserve unit that supports the squadron rescued the civilian pilot described in the article above.

Lt. Collins and LCdr. Hannum were en route from NAS North Island to Naval Air Landing Field San Clemente for an evening of FCLPs. During the transit off the coast off California, they changed course to assist the pilot of a twin-engine turboprop aircraft in distress. The pilot had been en route from Arizona to Carlsbad, Calif., when he became violently ill and passed out. After the events recounted above, the civilian pilot had regained consciousness and turned his aircraft back towards land. He was 200 miles out to sea, and radioed he wouldn't have enough fuel to make it to the closest airfield.

Lt. Collins and LCdr. Hannum closed on the civilian aircraft at 450 mph, but the pilot ran out of fuel and ditched at sea with the S-3B still approximately 60 miles away. Night had fallen, the sky was overcast, and the civilian pilot had no personal flotation device. After a 30-minute radar and visual search by the VS-41 aircrew, the downed aircraft was located with the pilot standing on top of the fuselage, waving a small flashlight. While Lt. Collins kept in visual contact with the pilot, LCdr. Hannum relayed the exact position of the downed aircraft to Air Traffic Control and nearby Navy units. The pilot was plucked from the sea by an SH-60B from HSL-43. His aircraft sank beneath the waves within five minutes of his rescue.

[Information in this article was issued by Naval Air Reserve San Diego as a press release, and credited in part to LCdr. Hannum, PAO of NR VS-41 FRS Detachment.—Ed.]

First Time for Everything

by Ltjg. Abraham Younce, USNR

The crew originally scheduled for an event had to cancel, and a newly designated HAC, showing some initiative, volunteered to get his first HAC flight out of the way. I went along to knock out one of my H2P syllabus hops. It would be my fourth flight since leaving the FRS.

We decided to fly VFR to Camp Pendleton, shoot some approaches, then return VFR to North Island—a simple plan. Keeping in mind the relative lack of experience in the cockpit, we made it a point to discuss the importance of aircrew coordination during the aircrew brief.

The flight to Pendleton went fine. We shot three approaches, fighting a 20-knot left crosswind on final. We executed our last missed approach and began our transit back to North Island. The HAC had flown the last TACAN approach, and he canceled IFR handling once we were over the water. He descended to 500 feet and accelerated to 120 knots before passing me the controls for the flight home. About five seconds later, we felt an unusual vibration. It started out as a lateral one-per vibration but very quickly developed into a dramatic vertical vibe, with the nose pitching plus and minus 10 to 15 degrees. The vibrations were fully developed in less than a minute.

Immediately after the nose started pitching, the HAC said, "I have the controls." He decelerated, trying to minimize the vibrations. I didn't notice much change—the vibrations became more stable but no less violent. Our crewman in back was very uncomfortable and asked, "Are we gonna land this thing?"

The HAC replied, "Roger, we're going for the beach."

I assumed this meant that we were going to land on the sand between the water and the cliffs, if we made it that far. The aircrewman wanted us to get down immediately. After the flight, I asked him how bad he thought the vibes were. He said that from his perspective, he was willing to set the aircraft in the water in order to stop vibrating.

After rolling out of our turn pointed at the beach, I noticed the master-caution light. A quick check of the panel showed a caution light for the stability augmentation system. I pointed this out to the HAC, and he said that he had released the automatic flight-control system with his cyclic switch, in an effort to troubleshoot our vibrations. It didn't feel like this had helped, but the HAC didn't call for AFCS to be re-engaged. I assumed that he didn't want it on. He then asked me to find the frequency for Palomar Airport on the VFR sectional. It was about four miles inland at our 12 o'clock. I wasn't able to read the chart because of the vibrations. We were now approximately 90 seconds into the emergency. The HAC told me to switch the radio to guard just as the aircrewman asked, "Are we gonna declare something?"

The HAC rogered and made a mayday call. I locked my harness, but I didn't switch our transponder to emer-

gency. The HAC began shooting an approach to the beach, steadily descending and slowing down. It seemed like forever before someone responded to our mayday, and when they did, it was to ask us to repeat it. We ended up repeating our position three times before it got through. After listening to a tape of the transmission, I can understand why. It was so broken up by the vibrations that only one in three syllables was intelligible.

While the HAC was repeating himself over the radio, I looked down at the water and wondered if I was going to need my HEEDS bottle. I began calling out our altitude, using the radar altimeter, to back up the HAC. I could barely focus on the needle because we were bouncing around so much. I found out later that he either didn't hear me or was concentrating on the approach so much that my calls didn't register. As we neared the beach, we could see dozens of people enjoying the beautiful day. I began flashing the searchlight to get them to move, but it wasn't working. At this point, we were just looking for a clear space on dry land. The aircrewman called for us to land in a parking lot that he remembered, but neither of us saw it up front.

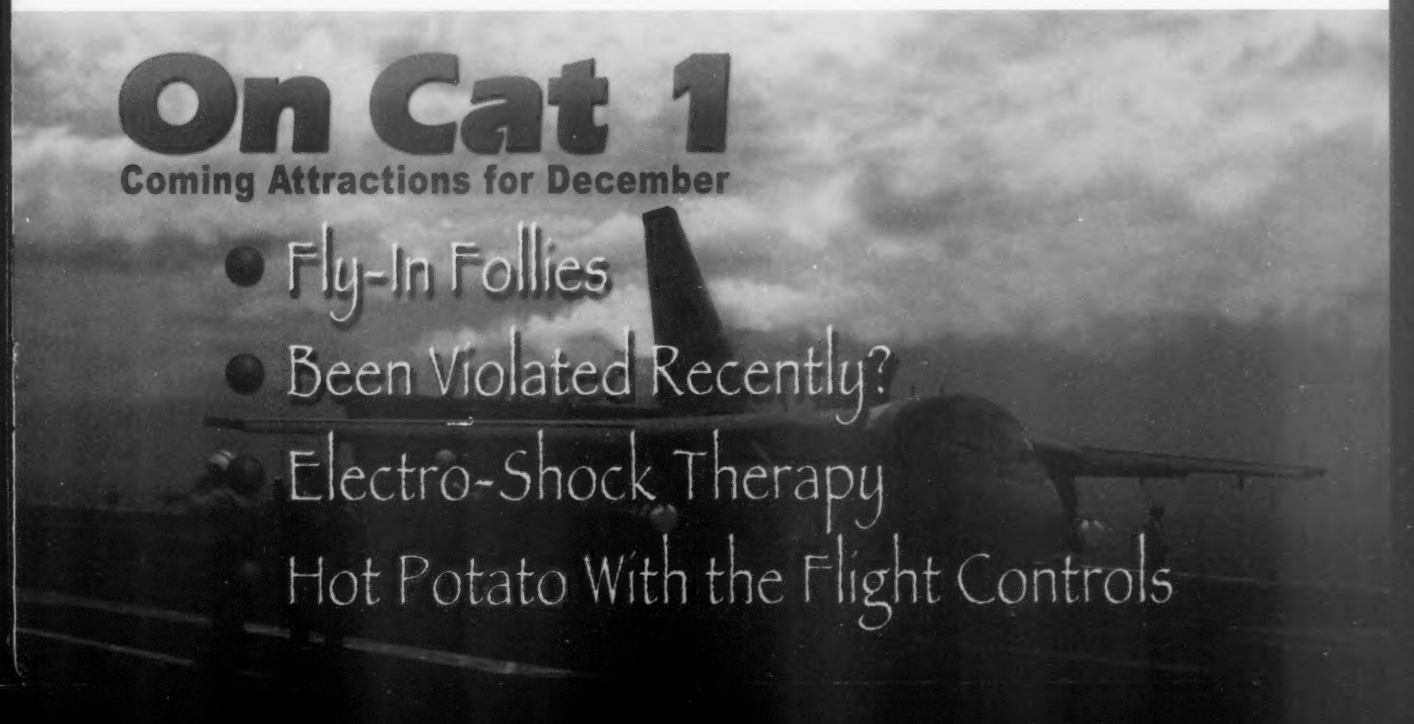
To our surprise, the vibrations lessened considerably as we got into ground effect at 40 feet. The strong winds out of the north definitely helped keep us in translational lift, and we started an air taxi. We were about 20 yards from the beach, and the helicopter was behaving almost normally. We briefly paused to reassess the situation. A divided highway ran along the cliffs bordering the beach. The HAC continued air taxiing toward it as the aircrewman and I called positions. The cars that had been heading toward us stopped when they saw that we were going to land. We made a no-hover landing in a cloud of dust.

One of the hydraulic lines leading to a main-rotor-blade damper had ruptured, allowing the fluid for all four dampers to bleed out. The outcome could have been a lot worse, especially if we had landed our 18,000-pound helicopter in the soft sand at low tide. Four aspects of ACT had helped us avoid that conclusion: decision making, adaptability and flexibility, situational awareness, and communication.

Instead of turning immediately toward land, we could have continued on our way, trying to troubleshoot the problem. Who knows what parts would have shaken loose if we had tried to fly home? When the vibration levels decreased as we entered ground effect, we had another chance to adapt our plan. We went from concentrating on saving ourselves to also saving the aircraft.

I had made a lot of assumptions based on my assessment of the situation. I should have been talking to the rest of the crew more to make sure we were all seeing the same thing. We communicated well when deciding what to do about the problem, but we didn't re-engage the AFCS after turning it off to troubleshoot. I don't know if it would have made a difference in how the helicopter was flying, but the system is designed to decrease pilot workload. When deciding exactly where to land, the flow of information from the pilots to the aircrewman could have been better. I assumed I knew what the HAC meant when he said we were going for the beach. It turns out I was right, but I could have made sure. Situational awareness is even more important in an emergency, and counting on being lucky in this profession is not a good idea.

Ltjg. Younce is the ground safety officer for HSL-47.


On Cat 1
Coming Attractions for December
• Fly-In Follies
• Been Violated Recently?
• Electro-Shock Therapy
• Hot Potato With the Flight Controls

classic

BROWNSHOES IN ACTION COMIX

"The kind real aviators like"

By Lt. Ward Carroll

VF-3.14's new safety officer wants his term to be characterized by "innovation." . . .

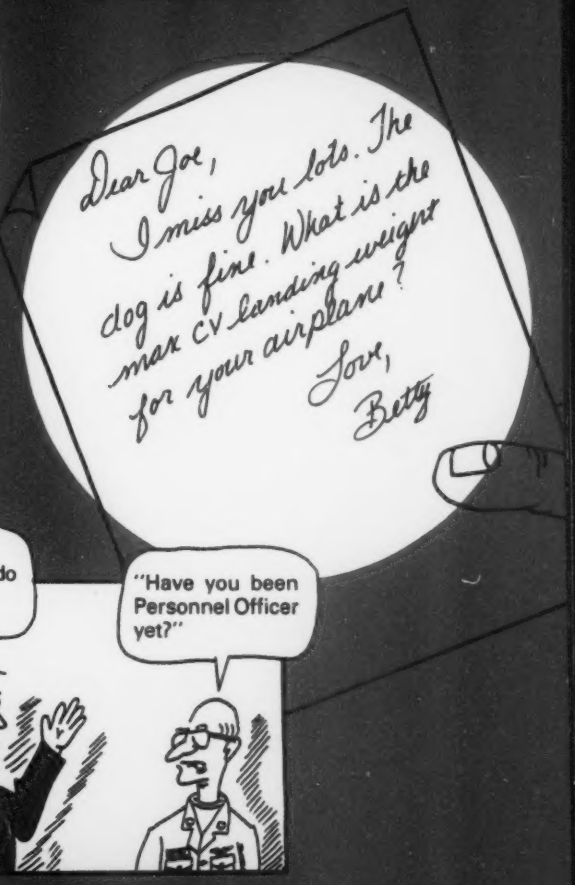
"We'll start by changing everyone's callsigns to important safety tips . . ."

"Hey, 'Head-on-a-Swivel!' have you seen 'Never-Gets-Complacent?' "
"No, 'Fly-the-Brief,' isn't he airborne with 'Centered-Ball-to-Touchdown?' "
100

"Then, I'll coordinate with the ship's TV guys the use of subliminal messages during football games."

"Gee, it's the middle of a no-fly day, and I have this urge to thoroughly preflight an ejection seat."
"Yeah, me too. Let's get down to the hangar bay."
FRED 1-13

"Finally, we can disguise NATOPS quizzes as letters from home . . ."


Dear Joe,
I miss you lots. The dog is fine. What is the max CV landing weight for your airplane?
Love,
Betty
"Well Sir, what do you think?"
"Have you been Personnel Officer yet?"